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Bellwether

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THE NEWSMAGAZINE OF THE UNIVERSITY OF PENNSYLVANIA SCHOOL OF VETERINARY MEDICINE



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A Message from the Dean

Recently, we named the **Walter Flato Goodman Center for Comparative Medical Genetics** (CCMG) in honor of **Walter F. Goodman**, a renowned breeder, exhibitor, and



judge of Skye terriers (see page 6). Walter always has the interest of dogs at heart, and naming the Center in his honor reflects his commitment to and passion for canine health.

Investigators in the CCMG have been at the forefront of genetic disease research for more than three decades. They have made substantial contributions to the diagnosis and control of genetic diseases within animal populations, and to the understanding and treatment of genetic disease using the animal homologues as models for research in areas such as gene therapy. More than 50 new animal homologues of human genetic diseases in various species have been discovered by the CCMG.

In recent years, the group has developed a number of DNA tests to detect affected and carrier animals for a variety of genetic diseases in the dog and cat. Such tests enable breeders to select away from affected and carrier animals, reducing, and eventually eliminating, certain genetic diseases.

Through the sequencing of the canine genome, completion of which is expected in

2004, much new information will become available. Knowledge of the genes present in the canine genome will allow researchers to describe genetic variations between breeds of dogs, to understand the genetic basis for the behavioral characteristics of specific breeds, to look for changes in gene expression when disease occurs, and identify metabolic pathways in normal and disease state. The latter may lead to new treatments. It will eventually allow for the examination of all the genes of one individual simultaneously, for one or more mutations. Further, it will allow for comparison between the canine genome and the human genome, to identify similar disease-causing genes.

Completion of the human genome project is changing the face of medicine and will continue to do so for years to come. The canine genome project will have a similar effect

in veterinary medicine and the Walter Flato Goodman Center for Comparative Medical Genetics will play an important part in using these new tools for combating and preventing genetic and other diseases in animals and humans.

As a measure of the importance the Medical School attaches to advances in canine genetics, Dr. Arthur Rubenstein, dean of the Medical School, and I shall jointly sponsor a workshop on the topic in December. To my knowledge, this is the first time that the veterinary and medical school deans have worked together in this way and it is a healthy sign of the increasingly collaborative direction of biomedical research.

Alan M. Kelly

The Gilbert S. Kahn Dean of Veterinary Medicine

Class of 2007 Alumni Legacy Students

Penn Veterinary Medicine takes pride in the admission of alumni legacy students. They provide a vital link through the generations of the School's alumni. Photographed in the Ryan Veterinary Hospital Emergency Service: **Tisha Ebling**, sister of Tony L. Ebling, V'03, and **Cristina Weiner**, daughter of Thomas J. Weiner, V'78.



Photograph by Addison Geary/addisongeary.com

Alumni and Friends Celebrate in the Big Apple

On October 24, nearly 50 alumni and friends of Penn Veterinary Medicine attended a reception at the New-York Historical Society in conjunction with the special exhibition, "Petropolis: A Social History of Urban Animal Companions." Gilbert S. Kahn generously underwrote the reception to help the School renew ties with its many alumni and friends in the New York City area.

In 1993, Kahn, a breeder, exhibitor, and judge of purebred dogs and a supporter of animal welfare and canine health issues, made a gift to name the deanship of Penn Veterinary Medicine. The Gilbert S. Kahn Dean of

Veterinary Medicine at Penn was the first endowed veterinary deanship in North America.

The exhibition provided a superb setting to celebrate Penn Veterinary Medicine in the Big Apple. In addition to welcoming remarks from **Dean Alan M. Kelly**, attendees heard **Dr. James Serpell**, the Marie A. Moore Associate Professor of Humane Ethics and Animal Welfare and director of the Center for the Interaction of Animals and Society, speak about people's relationships with animals.

To view the "Petropolis" exhibition online, visit www.purina.com/petropolis/default.asp.



Gilbert S. Kahn and Dean Kelly

Teaching and Research Building News

While it has been forty years since the School of Veterinary Medicine added a new teaching and research building to its Philadelphia campus, dreams are beginning to become reality on this critically needed project. The first visible sign of the new construction is the placement of barricades around the site to mark changes in the roadways. Revamping the traffic patterns in December is necessary, as the utilities that run under the building site must be moved prior to excavation.

The design process of the Teaching and Research Building is approaching the finer details, such as materials and finishes. The new facility will be four stories above ground and will have a vivarium floor below ground. The enclosed area of the structure is 125,000 square feet. A groundbreaking is planned for April 17, 2004.

Fundraising continues as the total project cost is \$54 million. Of this, \$47.3 million is already in hand. "The response of alumni, friends, corporations, and foundations has been remarkable," says **Mark Stuart**, assistant dean for alumni relations and development. "Of the current construction projects at Penn, this effort ranks among the very best in percentage of philanthropic support toward total costs."

Gifts and commitments of note:

Elizabeth R. Moran pledged a commitment of \$1 million given in the form of a challenge to the equine community.

We received a gift of \$100,000 from **Dr. James Buchanan**, Emeritus Professor of Cardiology.



The Teaching and Research Building site is bounded by University, Woodland, and Baltimore Avenues.

Mrs. Gloria Cochran, longtime friend of the School, pledged \$100,000 for the Dr. Josephine Deubler Bridge that will connect the new building to the existing Quadrangle Building.

We have applied to the **National Center for Research Resources**—part of the National Institutes for Health—for a \$4 million grant to fit out 19,462 gross square feet of the building. This includes nine laboratories and related support space to accommodate growth of ongoing research programs in stem cell biology, infectious disease, and comparative medical genetics.

This will enable the School to place seven research faculty members with complementary interests into a modern, integrated laboratory space; provide space for hiring two researchers to join a nationally regarded stem cell biology group; provide a flexible open laboratory facility that will promote collaboration and efficient use of major equipment; and promote a flexible and interactive environment for training students and postdoctoral fellows.

\$54 million goal

\$47.3 million raised

Veterinary School Buildings in Philadelphia



Quadrangle Building
1907



Gladys Hall Rosenthal Building
1963



Matthew J. Ryan Veterinary Hospital of the University of Pennsylvania
1981

A Day in the Life of a Field Service Team

by Susan I. Finkelstein

The William B. Boucher Field Service team at the School's New Bolton Center in Kennett Square, Pa. provides routine and emergency health care for local dairy and equine clients. The group's equine specialists offer routine preventive health care, reproductive services, evaluation and treatment of lameness, and state-of-the-art on-farm diagnostic services to approximately 5,600 horses annually. The Field Service dairy specialists provide routine on-farm health care and production medicine programs in nutrition, records evaluation, reproduction, milk quality, preventive herd health, and biosecurity on 20 dairy farms.

On a typical late-summer day, we rode along with equine specialist Dr. Alec Jorgensen on his rounds, from 8:30 a.m. to 5:30 p.m. The following article portrays an actual day in the life of a Field Service team comprised of a veterinarian and a fourth-year vet student.

The only signs that much of Chester County had been under several feet of water yesterday are the occasional standing puddles and the clumps of drying hay still twisted around the tops of fence posts, where the now-receded floodwaters had swept them. As much as eight inches of rain fell, more than 100,000 people lost power, hundreds of residents were evacuated, and most of the area became a virtual island, cut off from the rest of the world by impassable, submerged roadways.

Today, though, a bright morning sky shows no evidence of the recent deluge. Outside the William B. Boucher Field Service building at New Bolton Center, trucks of hay are being unloaded, horses are carefully led from trailers, and students, carrying steaming thermoses of coffee, are gathering to wait for their instruc-

tors and their next full day of Field Service.

Throughout their fourth year, Penn veterinary students can take rotations in New Bolton Center's Field Service practice, which includes providing emergency and routine medical care to dairy cattle, some beef cattle, horses, and the occasional alpaca or small ruminant. Students travel to owners' farms with veterinarians in specially equipped trucks (of which New Bolton has six) and acquire skills in reproduction, surgery, and medicine. It is recommended that students try to ride with all the clinicians at least once during their two-week rotation, but they have many opportunities to concentrate on either equine or dairy. Field Service and faculty in the Center for Animal Health and Productivity offer an eight-week intensive dairy-production medicine course for students desiring advanced skills in dairy production and consultation services. During this rotation, students evaluate records and farm-management practices on dairy herds routinely serviced by the Field Service staff. In all, more than 19,000 patient visits are made annually through the Boucher Field Service.

On this particular mid-September morning, at 9 o'clock sharp, Dr. Alec Jorgensen and Aarthi Subram, V'04, an equine major, climb into the converted white pickup truck clearly marked "University of Pennsylvania School of Veterinary Medicine" on either side, and set out for today's five cases. Dr. Jorgensen estimates that he travels an average of about 100 miles per day—and drove as many as 500 miles on one particular weekend. The visits generally are within a 40-minute drive from New Bolton Center.

A private farm in Cochranville, Pa. is the first stop. "Cookie," a 12-year-old Appaloosa, likely has contracted West Nile virus (WNV). He has been exhibiting symptoms typical of the disease: stumbling and incoordination, weakness of limbs, muscle twitching, fever. The mosquito-borne virus causes polioencephalomyelitis, or inflammation of the brain and spinal cord, ultimately interfering with central nervous system functioning and leading to severe clinical disease, or, in approximately 35 percent of cases, death of the horse. Because there is no cure for WNV, treatment consists of supportive care. Dr. Jorgensen has been administering a combination of anti-inflammatory drugs (one, the equine equivalent of ibuprofen) to Cookie—and the results are encouraging.



A soundness test.

Aarthi first walks and trots the horse, then leads him in zig-zags, a more complicated maneuver to help the doctor determine whether the neurologic symptoms have abated. The Appaloosa appears to have improved, but the team will continue to monitor his progress. Cookie may have a long road ahead of him: recovery time for WNV-infected horses can be as long as six months to a year.

According to the USDA's Animal and Plant Health Inspection Services, during the first nine months of 2003, 98 equine cases of WNV were reported in Pennsylvania, 89 in New Jersey, 45 in Maryland, and 6 in Delaware. "Unfortunately, West Nile virus is a significant portion of my caseload at present," Jorgensen explains. "Hopefully we are getting through the worst now with the weather getting cooler—the sooner the first frost comes, the better. We've had to push the vaccine strongly this year; many of our horses are vaccinated now." In February 2003, the WNV vaccine manufactured by Wyeth's Fort Dodge Animal Health was granted a full license by the USDA and approved by the FDA; several million doses of the vaccine have since been administered to horses all across the country. Although the vaccine is not 100 percent effective in preventing disease, the majority of the horses that have become ill with WNV have been unvaccinated, and administration of the vaccine has greatly reduced occurrence of the disease.



Dr. Alec Jorgensen and Aarthi Subram, V'04.

Next stop: Appleton Stables in Fair Hill, Md., an area bordered by Pennsylvania to the north and less than half a mile west of Delaware. Inside the stable, the sounds of country-western music twang from a transistor radio near one of the stalls. “Willy does better with country western music,” the stable owner explains—Willy being a horse, of course.

But it is a 15-year-old Appaloosa named “Indigo” who is the second patient of the day. Several days ago, Indigo sustained a mysterious eye wound—a severe injury that tore a flap of tissue from the front of the eyeball. Dr. Jorgensen surmises that the injury probably resulted from a flare-up of a recurrent ophthalmic condition (uveitis, or “moon-blindness”), which, coupled with fly irritation and bright sun, caused Indigo to traumatize her own eye by rubbing it against a post. “The eyelid was so swollen, so blown up, you could hardly see the eyeball,” Jorgensen recalls.

Wounds, whether self-inflicted or resulting from “horse disputes in the field,” as Dr. Jorgensen calls them, are his most common emergency cases. Oftentimes, these can be very serious. “Small wounds, caused by horses kicking other horses or horses getting caught up in a fence, can be catastrophic if they penetrate into a joint,” Jorgensen explains. Even a tiny wound that has pierced a tendon or a joint can result in permanent lameness or, ultimately, loss of the horse if the injury is not appropriately handled. (Colic and lameness, respectively, are the second and third most common equine emergencies encountered by the equine Field Service team.)

In this case, Indigo’s prognosis is very good. After closing all the stable’s doors and dimming the lights, Dr. Jorgensen and Aarthi use a small flashlight and ophthalmoscope to look into the horse’s eye, which is then stained and photographed for future comparison. A small green triangle on the surface of the eye indicates that the corneal defect has gotten smaller, and a thin layer of cell growth is already starting to fill in the abrasion. With the continued administration of eye drops, Indigo’s owner can expect her horse to make a full recovery from the injury, although a close watch will have to be kept for future uveitis flare-ups.

Back in the truck, alternately rolling past farmland and forest, Dr. Jorgensen discusses some unusual cases he has seen. He recounts stories from back in his native England: the

woman who was convinced her horse was dyslexic because it kept mixing up her signals, and his alarm when his boss informed him that the racehorse he had just anesthetized as an intern was “worth, comfortably, over a million dollars.” Aarthi talks about miniature horses, most weighing between 55 and 100 pounds, taught to assist blind people, much like Seeing Eye dogs. These Guide Horses are trained to live indoors, to ride in passenger vehicles (including taxi cabs, busses, and subway trains), to respond to voice commands, and to wear tiny sneakers so that their hooves do not slip on indoor flooring. Not only are miniature horses cheaper to keep than dogs, since their diet consists mostly of grains and grasses, but they usually live between 25 and 35 years, and



Checking the gait.

some have been known to reach 50.

Later in the afternoon, after a hasty lunch picked up at a gas station mini-mart and eaten en route, the field service team arrives at a stable in West Chester, Pa. for a pre-purchase examination of a 12-year-old blonde Quarter Horse pony aptly named “Gentlemen Prefer Blondes.” The client has the horse for a brief “trial” period, but would like the veterinarian to determine whether “Blondie” presents any risks or has any flaws before buying her—“a bit of a detective exercise,” notes Dr. Jorgensen. “This kind of visit can be the best and the worst,” he continues. “The best, because it is rewarding when a good match is found with all the client’s excitement and aspirations; the

worst, when a 12-year-old girl has her heart set on getting the horse, and you have to be the bad guy and point out problems.”

The heart and lungs are examined first for any cardiac abnormalities or murmurs, before the horse gets too excited. Next, the teeth, eyes, and skin are checked for irregularities, and the legs examined for signs of previous injury. Aside from some needed routine dental care and an old eye abnormality, so far, so good. The horse is fine when ridden around the ring and trotted by hand; however, Dr. Jorgensen notices that the front feet are a little “foresore” when turned on a hard surface. It is decided that it would be prudent to take some x-rays of the front feet.

In the stable, donning huge lead aprons, Aarthi and Dr. Jorgensen take radiographs of Blondie’s feet using a portable veterinary x-ray machine, a device that resembles an industrial-size yellow flashlight. The pictures will be developed back at New Bolton Center, at which time it will become clear whether the horse has serious underlying changes to the bones in the foot or has had previous episodes of laminitis (inflammation of the laminated tissue that attaches the hoof to the foot), which could be a serious and recurring problem. If Blondie gets a clean bill of health, she will serve as a “pleasure horse”—in other words, ridden only for leisure, not competitively—and enjoy a life of riding the trails of Chester County.

Around 5 p.m., on the way to the day’s last visit, again in West Chester, Dr. Jorgensen ponders a question regarding the extent to which horses are aware that he’s helping them. “Not at all, sadly. I think I’m just a big annoying fly to them.” Nevertheless, caring for horses, who have been part of his life since he started riding at the precocious age of 3, is tremendously rewarding.

On which educational technique he believes is more effective—fieldwork or traditional classroom learning—Dr. Jorgensen believes that, while both are required, hands-on experience is invaluable. “Once you’ve seen it, you remember it so much more clearly. When I was 15, I saw my local vet treat a cow with a uterine prolapse, and now, believe me, whenever I see one, the image of how the vet treated her all those years ago goes through my mind. It gets emblazoned so firmly in your brain that you don’t forget it.”

(continued on page 13)

New Members of the Board of Overseers

Beverly Ensor, Edwin M. Hershey, Jr., Vernon W. Hill II, Dr. Sheila Johnson, and Thomas J. Weiner, V'78, have recently joined the School's Board of Overseers.

Beverly Ensor and her late husband,



Mrs. Beverly Ensor

Lawrence Ensor, a bloodstock agent for Fasig-Tipton, supported the School through her leadership of the volunteer organization *An Evening in Old Saratoga*. Over the years, the organization has raised more than \$700,000 for a variety of projects at New Bolton Center. In 2003, the gala benefit *An Evening in Old Philadelphia* took place at Ardrossan, an estate on the Philadelphia Main Line. Mrs. Ensor and her Labrador retriever, Darcy, live in Chadds Ford, Pa., allowing Mrs. Ensor much greater access to the School and its activities.

Edwin M. Hershey, Jr. is chairman of Hershey Communications. He has bred and exhibited boxers and French bulldogs since 1969 and serves as a delegate to the American Kennel Club. He is a member of the board of the AKC Museum of the Dog, a member of the Westminster Kennel Club, and past vice chair of the ASPCA. Ed Hershey has two children and lives with his family in Greenwich, Ct.

Vernon W. Hill II is the founder of Commerce Bank, which was launched in 1973 with the opening of its first branch in Marlton, N.J. He has served as chairman and president of Commerce Bancorp., Inc. since the bank's inception. Mr. Hill is a member of the University of Pennsylvania Board of Trustees. He is a graduate of Penn's Wharton School



Vernon W. Hill II

where he earned a degree in economics. Mr. Hill has two children and resides in Moorestown, N.J. with their pet Yorkshire terrier.

Dr. Johnson graduated from the University of Illinois.

Dr. Johnson is very active in the equestrian community; her daughter Paige is one of the top junior riders and show jumpers in the United States. Dr. Johnson is a member of the Board of Trustees for the United States Equestrian Team, the American Horse Show Association, the Pennsylvania National Horse

Television (BET) in 1979. She was a music teacher, violinist, and orchestra conductor, as well as a lecturer and author of early childhood music education.

Dr. Sheila Johnson was the co-founder of Black Entertainment



Dr. Sheila Johnson

Hall's Educational Advisory Council, and a member of the Board of the Salvation Army. Dr. Johnson resides in The Plains, Va.

Thomas J. Weiner, V'78, is profiled in this issue on page 18.

Show, and the Equestrian Alliance. She was elected president of Washington International Horse Show. Dr. Johnson also is a member of the Community and Friends Board of the Kentucky Center for the Performing Arts, co-chair for Carnegie

An Evening in Old Philadelphia Check Presentation

Members of the Board of Directors of *An Evening in Old Saratoga* and various committee members were on hand to present a check for \$33,000 to **Dr. Alan Kelly** on Sunday, October 5 in the Scott Equine Sports Medicine Building at New Bolton Center. This check represented the proceeds from the group's June fundraiser, *An Evening in Old Philadelphia*, when nearly 300 people attended a black tie gala dinner and silent auction at the legendary home of the Montgomery Scotts, "Ardrossan Farm."

The group toured the Exercise Physiology Laboratory named for them, and saw a presentation by **Dr. Ric Birks** regarding his work in exercise induced pulmonary hemorrhage in the horse.

An Evening in Old Saratoga has raised more than \$700,000 in the past dozen years for the School. These funds have helped make possible the purchase of vital diagnostic equipment as well as the completion of the Scott Equine Sports Medicine Building. The School is indebted to the group for their tireless work and enthusiasm and dedicated, loyal support.

Walter F. Goodman Honored

Walter F. Goodman, a renowned American Kennel Club (AKC) judge and a member of the AKC's Board of Directors, was honored by the School by the renaming of a research center. The Walter Flato Goodman Center for Comparative Medicine and Genetics is dedicated to clinical and basic research on companion animals with diseases that are counterparts of human diseases. The major emphasis is on inherited disorders.

"Throughout his long career as a breeder of superb Skye terriers, and now as a judge of dogs, Walter always put first the health and welfare of dogs," says **Dr. Alan M. Kelly**, the Gilbert S. Kahn Dean of Veterinary Medicine at the School. "Naming the Center in his honor reflects his commitment to and

passion for canine health.

"Walter, for many years, has been an ideal volunteer leader for Penn's School of Veterinary Medicine. In addition to giving generously of his time and talent, Walter has made the financial future of the School a significant personal priority. Recently, he and his associate, Robert A. Flanders, established two irrevocable trusts at Penn."

Researchers at the Walter Flato Goodman Center for Comparative Medicine and Genetics identify and characterize new models of genetic diseases, investigate disease-causing genes, study mechanisms of pathological, and develop novel therapeutic approaches.

Walter F. Goodman joined the School's Board of Overseers in 1986.

Correction

Mrs. Marlene Brenner Ferguson was incorrectly identified as Mrs. Wayne Grafton in a photo caption on page 31, *Bellwether* 57.

NBC's Radiology Adds Large Digital Sensor Panel

Penn's George D. Widener Hospital for Large Animals at New Bolton Center became the first hospital (human or animal) in the United States to use a portable digital radiography system with a 14"x17" digital sensor panel. The new equipment, installed in September, enables radiologists to radiograph skulls, necks, and thoracic and abdominal areas of horses and other large animals. The previously installed 9"x11" sensor panel permits digital radiographs of limbs or other small areas.

"This new digital sensor panel allows us to capture a large radiographic image in seconds," says **Dr. Alexia McKnight**, lecturer in Radiology at New Bolton Center. "If the image isn't positioned correctly, we can quickly repeat it. With film we had to wait for the developed image, which took time and often meant that the animal had to be re-sedated if a view needed to be repeated."

Dr. McKnight explains that digital radiography provides more detailed images than traditional films. Contrast is improved and

information is easier to interpret. This is because the software allows manipulating the raw data to bring into view more diagnostic information. "We can see subtle bony lesions much more clearly on digital radiographs," says Dr. McKnight. "Also, subtle fractures are visible. They don't show up on film, and we used to

images has also been a wonderful bonus of the digital system. It also enhances our referral capabilities because of the amount of detail we can capture through this technology."

The system also provides other efficiencies. Technicians no longer have to develop film and work with chemicals; the images are stored on



Conventional radiograph.



Digital radiograph.

use xerography, which required a significantly higher exposure. The digital system is much more efficient for us and better for the patients because we can perform our study much faster and with shorter sedation time. The ability to accurately measure angles and distances on the

a Picture Archiving and Communication System that is the size of a washing machine, so storage space needs are less. The system is also backed up daily to an off-site center in California.

The digital images can be retrieved quickly on computers throughout the hospital, enabling clinicians to view them in their offices. Dr. McKnight, the other radiologists, and the clinicians can review the images on special high-resolution grayscale monitors that are quite large. The images can be enlarged and the radiologist can zoom in on an area. Because of the incredible detail and digital archiving, the system makes it much easier for teaching students who are rotating through large animal radiology.

New Bolton Center's Field Service, the Emergency Service after hours, and the operating rooms still use conventional radiographs, but these are later digitized for interpretation and storage. Eventually, a large digital archive of radiographs will be available, making retrieval much easier for retrospective studies.

The purchase of the new, larger sensor panel and its computer was made possible by the Estate of Elizabeth Ernst Fosbinder, wife of the late Dr. Russell J. Fosbinder.

Term Chair Established for Special Species Medicine

In recognition of the prominence of the Special Species program here at Penn, ABAXIS, Inc., a medical products company, established the ABAXIS Term Chair for Special Species. This will support advanced research in diagnostics and treatment of special species. "Special species, particularly birds and reptiles, are presently the fastest-growing segment of veterinary practices," said Kenneth Aron, Ph.D., vice president of Research and Development at ABAXIS. "Because of the range and number of different avian and reptilian species, much research still remains to be carried out to optimize treatment options and decisions for many of these special species. At ABAXIS, we hope that by establishing a Chair solely dedicated to special species, we'll be participating in the commitment to bring improved diagnostics to this rapidly growing segment."

The Special Species Clinic at the Ryan Veterinary Hospital is a busy service, with more than 800 patient visits annually. The Clinic has its own ward and nurse practitioner as well as two clinicians. "The establishment of the ABAXIS Term Chair for Special Species is recognition of the growing importance of these pets," said **Gail Smith, V74**, chair of the School's Department of Clinical Studies—Philadelphia. "These patients require special care, and much needs to be learned about their diseases and treatment. This Term Chair will enable the faculty member who will hold it to conduct research and advance the field of special species medicine. We are grateful to ABAXIS for its generosity and foresight."

The School will conduct a search for the appointment and hopes to make an announcement in 2004.

Augustus Lushington, Class of 1897

By Alice S. Weiss, V'84

There was no way my daughter looked like Phillis Wheatley, but her fourth-grade classmates were convinced. Lena was impersonating the eighteenth-century poet during her school's African American history month. I thought back to when I was in fourth grade, and my mind drew a blank. I don't remember being taught any African American history—ever. My daughter Lena's class was learning about all kinds of African American leaders and heroes, and I wondered about African American veterinarians.

I went to Penn in the early 1980s, and I might as well state right now that tolerance in my class, and in the School generally, was—well, it just wasn't there. It's impossible to say exactly who among the students opposed women and minorities, but a little intolerance went a long way. Many of my classmates were from areas with no diversity whatsoever, and some of them had trouble accepting anyone unlike themselves. Gay veterinary students were intimidated, even those who thought themselves inconspicuous. Women students were also harassed. I didn't know what it was like for the very few African American students at the School until a moment in the mailroom when an African American classmate pulled out the contents of her mailbox: class notes, flyers to campus fundraisers, and an astounding stack of hate mail—ugly racial slurs sprawled in dark ink. I asked her if she had taken the letters to the proper School authority and she laughed. The attitude of the School back then was to tough it out. So she did.

I never forgot that stack of hate mail. I wondered about the experience of other African American veterinarians. My daughter's assignment had started me thinking about the history of African American vets. I was curious. Who was the first? The Internet offered an answer. An old photograph popped up on screen. It depicted an impeccably dressed handsome young man staring off into the distance. Although the photo was faded, with

some rips and white spots, the man was very much in focus. He wore spectacles and had a mustache, which gave his young face an air of maturity. His name was Augustus Nathaniel Lushington. The caption said he had graduated from Penn in 1897! More names appeared on the screen: "Drucilla Moultrie" and a museum in Lynchburg, Va., but that was it. I was stuck, until I thought outside the Net.

From directory assistance I got telephone numbers for the museum and Drucilla Moultrie. After I dialed the museum, the voice on the other end of the phone, with its soft Southern accent, answered, "Oh yes, we know Dr. Lushington. Would you like to speak to his daughter? She is right here." I apologized to the woman; I must have the wrong number. I was interested in finding out information about a Dr.

Lushington who graduated from Penn's Veterinary School in 1897. "Oh yes, there is no mistake," the voice giggled. "His daughter is 100 years old. She is right here. Hold on." I was stunned. Another voice came on the phone. "Hello? Hello?" I'm not sure what I said, because my mouth wasn't working, but I did manage to ask a few simple questions. "Oh yes, my father graduated from veterinary school in 1897. I can tell you about him. Why don't you come on by to Lynchburg and see me?" So I did.

Now I'm not stupid—I mean, I did finish veterinary school—so I know when I need my mother. She is a brilliant interviewer and would be able to take over when my mouth failed me. Just thinking about meeting the daughter of this long-ago vet had me awestruck. I called my mom and asked her to meet me and head on South. So she did.

My mother was perfectly relaxed during the trip down to Lynchburg; figuring one of us needed to stay sane, I didn't tell her how paranoid and out of place I felt, too much of a Jewish city girl in a small-town space. Thankfully, my anxiety was gradually eased by good old Southern hospitality. By the time we walked into Drucilla Moultrie's room, my discomfort was entirely gone. A caretaker sat next to Mrs.

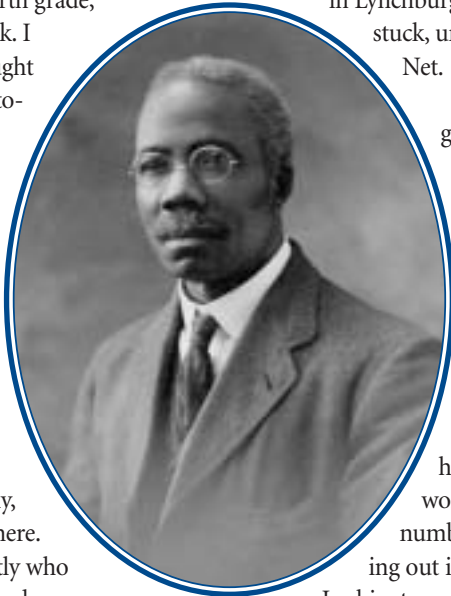
Moultrie, and it took me a while to tell which lady was 100 and which was 65. It wasn't that the caretaker was in poor shape, it was just that Mrs. Moultrie was in amazing condition. My mom and I visited for two days. We looked through scrapbooks and pictures. We listened to stories. We went to the local museum and to the graveyards where the Lushingtons were buried.

Augustus Nathaniel Lushington was born in 1869, in Trinidad, an island that is part of the West Indies. In the mid- to late 1800s, Trinidad was becoming overpopulated, especially with people of color. Many Africans, like Dr. Lushington's grandparents, had been brought to the island as slaves to work the sugar plantations. Now the plantations were drying up and the government was encouraging their workers to leave.

Slavery had been abolished in Trinidad in the early 1800s, much earlier than in the States, and every Trinidadian, regardless of ethnicity, was guaranteed an education. Still, life was not easy for former slaves and their families, especially with so few jobs available. Augustus Lushington, or Gus as he was called, finished school with good enough grades to be a

teacher, taught school for a few years, but then set off to South America to pursue one of his first loves—trains. After a short time, however, he returned to Trinidad for a visit, said goodbye to his parents for a second and last time, and went to the United States in the pursuit of higher education.

In 1889 it was not easy for everyone in America to move above their stations, especially a dark-skinned religious Episcopalian West Indian with a lilting accent—but Augustus Lushington came anyway. A network of other West Indians reached out to him, introduced him to his future wife, and helped him with his education. Gus took premedical and agricultural courses at Cornell University before he enrolled at Penn's Veterinary School in 1894.



Drucilla Moultrie

Finishing vet school in three years, he took himself and his wife to Virginia. Mrs. Moultrie remembered a lot about her dad and his life but many empty spaces existed as well. She had no idea what the veterinary school experience was like for her father and she didn't know why he decided to pursue his career in the South.



Dr. Lushington and family members.

Some of the holes were patched by talking to local historians. Lynchburg was a major, bustling city in the late nineteenth century, a hub of railroad lines

surrounded by prosperous farms. Schools were segregated, but they existed for both black and white children. Gus found a job teaching at a boys' agricultural school on the outskirts of Lynchburg, and later moved into town to start his veterinary practice.

Dr. Lushington practiced large animal medicine. In those days, not many families had indoor pets; a few wealthy people had cats and dogs, but most people had enough trouble putting food on the table for their families, without having to worry about feeding a pet besides. Mrs. Moultrie remembered a dog and a few cats that hung around their home, but they were not allowed inside. The animals in their lives were predominantly working animals: a cow for the milk and a horse for the ride. Only one other veterinarian practiced in the area, so Dr. Lushington had plenty of work. Nevertheless, he took on a number of other jobs. He served as a government meat inspector and worked as a probation officer on weekends.

My mother and I were stunned by his reason for taking all these jobs. His daughter explained that although her dad had many large farm clients, they rarely paid him. Her father could not demand payment, but he also could not refuse to go to those farms, which sometimes involved walking miles in the dark through wooded hills. Dr. Lushington took the additional jobs to keep his home and family

going. His daughter said she remembered him as always working and rarely home. After many years, Dr. Lushington did assume some small animal work. He worked right up until his death in 1939, at the age of 69 years. He was well respected as a doctor in his African American community and he was honored posthumously by the University of Pennsylvania, thanks in part to another African American veterinarian, William Waddell, who wrote a book about early African American leaders.

After I returned from the Virginia trip, I visited the National Library of Medicine to learn about veterinary medicine in the 1800s. A librarian helped, not with a book but with another librarian, Dr. Philip Teigen, whose specialty was, of all things, the history of veterinary medicine. I told him I was looking into the story of the first African American veterinarian, Dr. Nathaniel Lushington. "Well there were other African American vets before Dr. Lushington," Dr. Teigen informed me. I sighed before I politely corrected him, "No, Dr. Lushington was the first African American vet. He graduated from the first American veterinary school, at the University of Pennsylvania." In the next ten minutes, Dr. Teigen gave me more information than I had gathered in the previous four months. He told me that Penn was among the earliest vet schools still in existence today, but it was not the first American veterinary school. After the Civil War the veterinary profession became a prestigious and vital calling. Why? The horse. Horses were everywhere, hundreds of horses per city mile, and anyone who made a living from horses—farriers, feed lot owners, stable owners—did well.

No vet schools existed in the United States until the New York College of Veterinary Surgeons graduated its first students in 1867, but it didn't take long for the big universities to discover that a veterinary school would be an important addition to their institutions. Penn and Harvard rushed to be the first major university to establish a veterinary school. Harvard won, admitting its first students in 1883. It folded in 1901 because of the overabundance of veterinarians in the United States and Canada and because of its chronic financial problems. In 1889 Henry Stockton Lewis, an African American from Cambridge, Mass., graduated from the Harvard School of Veterinary Medicine. Dr. Stockton went on to practice in Chelsea, Mass. One of his many achieve-

One hundred and six years after Dr. Lushington's graduation, the 28 veterinary schools in the United States still struggle with low minority attendance rates, which stand in stark contrast with the racial makeup of the country. According to 2000 U.S. Census data, African Americans, Latinos, and Native Americans (minorities that have been traditionally underrepresented in higher education) constitute 25% of the U.S. population, but only between 6% and 7% of all veterinary students in the last five years.

A variety of explanations—some of them controversial—have been put forth as to why minorities are less inclined to pursue a veterinary education: due to economic pressures, minorities have less opportunities to own pets, lack exposure to veterinary medicine, have few veterinary role models, and prefer higher-paying careers in human medicine and pharmacology.* Some attribute the low minority attendance rates, in part, to recent legislative and judicial decisions, which have limited the use of special consideration of race and ethnicity in admissions decisions.

In any case, it is clear that more must be done to attract bright underrepresented minorities into the field. This fall, three African American women and one Latino woman entered Penn's Class of 2007—a small step, to be sure, but nevertheless one on which Penn hopes to build in order to contribute to the diversity of future generations of veterinarians.

S.I.F.

* "The Face of the Veterinary Profession," JAVMA, Vol. 222, No. 10, May 15, 2003.

ments was serving on the first veterinary registration board in Massachusetts.

So here was another African American pioneer. Here was another story to unfold. Was his journey more important than Dr. Lushington's because he graduated first? The more I thought about it, the more confused I became. A little research showed that Dr. Lewis's life seemed easier than Dr. Lushington's. He lived and prospered in Massachusetts,

(continued on page 12)

Canary in a Coal Mine

The Connection Between Animal Abuse and Human Violence

By Susan I. Finkelstein

Animals have long served as prognosticators of disease and toxins in the environment. For centuries, canaries were brought into coal mines to alert miners to carbon monoxide; if the birds died, the miners quickly evacuated. Today, scientists regard reductions and mutations in the populations of frogs and other amphibians as first signs that other species or an entire habitat might be in jeopardy.

Recently, evidence has indicated that animals can play a similar role with interpersonal violence. Psychology, sociology, and criminology studies conducted in the last quarter-century have shown that many violent offenders repeatedly committed acts of serious animal cruelty during childhood and adolescence. Other research has demonstrated consistent patterns of animal cruelty among perpetrators of common forms of violence, including child abuse, spouse abuse, and elder abuse. Recognition of these patterns may help human service professionals make life-saving decisions related to suspected instances of family violence when animal abuse is also evident.

Such was the subject of a Continuing Education course held on campus in October, "Interpersonal Violence and Animal Abuse," co-sponsored by the Vet School and the School of Social Work. Jodi A. Levinthal, M.S.W., a doctoral candidate in Social Welfare at Penn, organized and led the interactive workshop, along with Phil Arkow, humane educator and chair of the Latham Foundation's Child and Family Violence Prevention Project. Ms. Levinthal is also a member of the Center for the Interaction of Animals and Society (CIAS), a multidisciplinary research center within the Vet School that provides a forum for addressing the many practical and moral issues arising from the interactions of animals and society. (The CIAS addressed the animal abuse/interpersonal violence issue in 1998, with its sponsorship of the Third Interdisciplinary Conference on Human Relations with Animals and the Natural World, "The Cruelty Connection: The Links between Animal Abuse, Child Abuse, and Family Violence.")

Arkow presented striking evidence for a link between animal cruelty and human violence in the case histories of some of the twentieth century's most heinous murderers. David Berkowitz, known as "Son of Sam," shot a neighbor's Labrador retriever before committing his murders. As a child, future serial killer

and cannibal Jeffrey Dahmer killed neighborhood pets and impaled animals' heads on sticks. More recently, before Columbine High School students Eric Harris and Dylan Klebold shot and killed 14 classmates and a teacher (and fatally shot themselves), they had bragged about mutilating animals to their friends.

Less dramatic but no less critical is the connection between animal abuse and family violence—"The Link," as it is called in social work circles. "Family violence often begins with pet abuse," notes Arkow. Abusive family members may threaten, injure, or kill pets, often as a way of threatening or controlling others in the family. According to the 2002 Report of Animal Cruelty Cases published by the Humane Society of the United States (HSUS), approximately 12 percent of the reported intentional animal cruelty cases also involved some form of family violence, including domestic violence, child abuse, spouse/child witnessing animal cruelty, or elder abuse.

Interestingly, the parent is not always the one hurting the animal. Children who abuse animals may be repeating behavior seen at home; like their parents, they too are reacting to anger or frustration with violence. Children in violent homes frequently participate in "pecking-order battering," in which they may maim or kill an animal, the only member of the household more powerless than they are. Indeed, domestic violence or neglect is the most common background for childhood cruelty to animals. Ms. Levinthal related a case in which she witnessed a child attempting to strangle a kitten during a home visit; that act led to several other revelations that ultimately confirmed her suspicions—the single mother was addicted to drugs and posed a threat to her children.

And yet, despite all the statistics, case studies, psychologists, and even FBI profilers consistently reaffirming "The Link," animal abuse crimes are not given nearly the weight in the criminal justice system that human crimes are given. In 1997, in an attempt to raise public and professional awareness about the animal cruelty/human violence connection, the HSUS created the "First Strike" campaign, which aims to strengthen collaboration among animal shelter workers, animal control officers, social service workers, law enforcement officials, veterinarians, educators, and others to establish strategies to reduce animal cruelty and family and community violence.

Indeed, professionals who help families in crisis have already begun realizing the role animals play in family violence. Many law enforcement agencies now are training officers responding to domestic violence calls how to recognize signs that a situation is life threatening: instances where the abuser has threatened suicide, is displaying a firearm, or has hurt or killed a family pet.

Additionally, domestic violence shelters, veterinarians, kennels, and local animal welfare organizations have started working together to develop "safe havens" for the pets of domestic violence victims. Many victims delay leaving the batterer out of fear for their pets' safety, but with more than 100 Safe Haven for Pets programs now operating around the country, many domestic violence victims no longer have to choose between their well-being and their pets. Under the various programs, shelters actually house the pets with their owners on a temporary basis, find space for the animals at local kennels, or recruit volunteers to act as "foster parents" for the endangered pets while their owners seek medical attention, counseling, and other help.

Increasing awareness levels have indeed made a difference in the past ten years: the evidence that cruelty toward animals is indicative of other violent behaviors has been so overwhelming that 41 states and the District of Columbia currently have felony-level convictions for serious acts of animal abuse. Still, some law enforcement officials and social service workers say that putting greater emphasis on animal abuse is impractical, given all the other crimes and cases they must respectively handle. "Animal abuse must be redefined as a crime of violence rather than a crime against property," counters Arkow. "It must be perceived and documented as a human welfare issue. The network of community caregivers must be cross-trained to recognize and report all forms of violence."

Authorities often discover animal abuse earlier than child or domestic abuse because it usually occurs in plain view. While hiding their own abuse, human victims may talk openly of animal abuse or neglect occurring in the family. Since legislation governing animal abuse and child abuse investigation and intervention are different, animal control agents often enter homes when social service workers cannot. Working together through cross-reporting, these agencies can help each other gain information about abusive situations and end cycles of violence that often have tragic results.

Coming to the Ryan Veterinary Hospital in January: Hemodialysis

by Susan I. Finkelstein

Life-saving kidney dialysis treatment, known as hemodialysis, will be possible, beginning in January 2004, for ailing dogs and cats at the Matthew J. Ryan Veterinary Hospital—thanks to the pioneering efforts of **Dr. Reid P. Groman**, staff veterinarian in emergency and critical care medicine. Previously, Ryan veterinarians would refer approximately two patients each month to the Animal Medical Center in New York City—a process often repeated for each animal three times a week—but such a trip was not feasible, of course, when animals needed immediate attention, particularly after ingesting antifreeze. In addition to the referrals, Ryan hospital receptionists reported fielding several calls every week from pet owners inquiring if dialysis was available here. So, indeed, Dr. Groman anticipates a case-load that is more than ample to support the endeavor.

Among the thousands of companion animals treated every year at the Ryan Hospital are more than 400 cats and dogs experiencing acute kidney failure due to antifreeze poisoning, infection, trauma, inherited kidney diseases, and infectious nephritis. Although about 40 cats a year successfully receive kidney transplants at the Hospital, factors such as patient instability, donor unavailability, and transplantation reactions (in dogs, especially) limit treatment for most other patients to conservative medical management, with an annual mortality rate of 33 percent.

Ninety percent of the animals that manage to survive acute kidney failure from antifreeze poisoning—even after receiving aggressive medical treatment—die within a year, according to Ryan Hospital data. Since dialysis removes the toxin, as opposed to medical therapy that only *blocks the conversion* of the antifreeze to other toxic metabolites, pets brought in to Ryan immediately following antifreeze ingestion face a more favorable prognosis once they receive the dialysis that is now available to them. In fact, the potential for recovery and long-term survival for animals

suffering from all kinds of kidney failure increase dramatically with hemodialysis. “Sixty percent of veterinary patients with renal failure requiring dialysis can recover enough kidney function to discontinue dialysis therapy,” notes Dr. Groman.

In hemodialysis, an artificial kidney removes waste products, or uremic toxins, from the blood that the kidney normally filters and excretes on its own. The animal’s blood is drawn from its body and circulated through the dialysis machine, where it passes through a membrane that serves as an artificial kidney by removing many of the toxins; the “filtered” blood then returns to the animal’s body. Typical treatments last about four or five hours (as long as ten hours for some intoxications),

and usually occur two or three times per week for several weeks to several months.

Patients rarely require sedation for the procedure. They are kept on a soft, warm “bed” and fitted with a harness that permits them to stand up and move, but will not permit them to jump off the table and pull out their catheter. Set-up requires about one hour per patient, including patient assessment, evaluating the catheter and catheter site, formulating the prescription, and so forth.

Dr. Groman anticipates that companion animal patients will most commonly

receive hemodialysis for ingestion of antifreeze and other toxins, such as ibuprofen and easter lilies, and infectious diseases, most notably leptospirosis (a bacterial disease that attacks the liver and/or kidneys in dogs) and pyelonephritis (kidney inflammation caused by a bacterial infection, which can occur in both cats and dogs). In addition, cats awaiting kidney transplantation but that are too ill to be anesthetized and withstand the surgery will be eligible to receive dialysis treatment so that they may be “conditioned” or “stabilized” for transplantation.

“Many critically ill animals develop acute renal failure during their hospitalization here and elsewhere. These may be dialysis candidates, too,” says Dr. Groman.

...the potential for recovery and long-term survival for animals suffering from all kinds of kidney failure increase dramatically with hemodialysis. “Sixty percent of veterinary patients with renal failure requiring dialysis can recover enough kidney function to discontinue dialysis therapy,” notes Dr. Groman.



Sam presented to the Emergency Service in early November with a one-day history of anorexia, and was diagnosed with acute renal failure. He was suffering from a resistant urinary tract infection and blocked ureters. In addition to receiving 10 dialysis treatments, Sam had surgery to successfully remove the blockage. Sam is presently doing well at home, and has no residual signs of kidney disease at this time.

When Sam received his treatment, the dialysis room featured a temporary set-up. Right now the room is being renovated to install the treatment tables and other equipment in a permanent lay-out. The room will be functional again in January.

The Companion Animal Hemodialysis Center, on the third floor of the Ryan Hospital, has three “beds,” or stations, and two dialysis machines that can run simultaneously. The third bed can be used to prepare a patient while another finishes its treatment. The machines are identical to those used in human dialysis units, but have been modified for animals using human neonatal and pediatric blood circuits; only those parts that connect the animals to the machines were adapted—pediatric equipment is used for dogs, and neonatal equipment for cats. (Very large dogs can be treated with an adult circuit.) The School has also purchased water-treatment apparatus (a reverse osmosis machine) to cleanse the city water before it comes into contact with the patient’s blood, and state-of-the-art monitoring equipment—“rivaling most human facilities,” notes Dr. Groman—to measure blood pressure, volume status, and coagulation status.

In preparation, Dr. Groman trained at the University of California, Davis for six months, between September 2002 and March 2003, under the tutelage of Dr. Larry Cowgill, who has trained every veterinarian presently performing hemodialysis anywhere.

Improving Survival Rate of Cloned Mouse Embryos

by Steve Bradt

Scientists at the School have found a novel way to boost the paltry survival rate of cloned mammals: When two genetically identical cloned mouse embryos are combined, the aggregate embryo is considerably more likely to survive to birth.

The team reported the results in the October 1 issue of the *European Molecular Biology Organization Journal*.

“At the blastocyst stage, an early embryonic stage just prior to implantation, mouse clones typically have a much lower than normal number of cells,” says corresponding author **K. John McLaughlin**, Ph.D., assistant professor of Reproductive Physiology. “When we combined two clones at the four-cell stage, the embryos showed a remarkable improvement in viability, much greater than expected from the sum of their parts.”

Despite the successful cloning of sheep, pigs, cats, and most recently rats, mammalian cloning—in which an ordinary cell’s nucleus is transferred to an egg whose nucleus has been removed—remains remarkably inefficient. Of every 100 cloned mice, roughly one survives to birth.

The researchers found that when the clone hybrids were transferred back into the uteri of recipient mice, the survival rate jumped to 8 percent. The researchers even produced a litter of four cloned mouse pups, in stark contrast to the typical single pup born.

Cloning requires the precise genetic reprogramming of the nucleus inserted into an enucleated egg. This nucleus must abandon its former genetic program and adopt the genetic

profile of an embryonic nucleus; failure to do so dooms the embryo.

“The paper provides a new insight into reprogramming following nuclear transfer,” says Davor Solter, a developmental biologist at the Max-Planck Institute of Immunobiology who was not involved in this work. “It confirms indirectly that every cloned embryo is actually different and that reprogramming is random. It seems that two embryos that are epigenetically different can positively interact and complement each other, leading to correct temporal and spatial gene expression. That this type of interaction can take place was not obvious and it could only be demonstrated by the described approach.”

McLaughlin and his colleagues are not yet sure why the aggregation of cloned embryos boosts survival, although one theory is that the combination of two embryos helps compensate for genetic deficiencies in either.

“The genetic reprogramming of a cloned embryo never seems to occur with 100 percent accuracy,” McLaughlin says. “However, the group of genes that fails to reset properly differs in each individual embryo, meaning that each embryo

that contributes to an aggregate can help mask the shortcomings of the other. By combining cloned embryos, you might end up with an embryo that’s 99 percent reprogrammed rather than just 90 percent.”

When McLaughlin and colleagues cut wild-type mouse embryos in half, they found that the expression of key developmental genes was not affected, suggesting that the developmental deficiencies of cloned embryos are not due to low cell counts alone. They speculate that cells in a blastocyst may communicate in a way that is compromised in a smaller cloned embryo.

McLaughlin’s coauthors for the *EMBO Journal* paper include **Drs. Michele Boiani, Sigrid Eckardt, N. Adrian Leu, and Hans R. Schöler**—all of Penn’s Center for Animal Transgenesis and Germ Cell Research. Their work was funded by the Marion Dilley and David George Jones Funds, the Commonwealth and General Assembly of Pennsylvania, the National Institutes of Health, the University of Pennsylvania Research Foundation, and the United States Department of Agriculture.

Lushington

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which was a more tolerant state than Virginia, and stayed active in civic affairs most of his life. Dr. Lushington faced tremendous odds to become and practice as a veterinarian. His success can be measured in many ways. He was a veterinary doctor, and a parole officer, and a federal meat inspector. His community connections were strong: as a Mason, a deacon, and a member of the Chamber of Commerce. It was evident from spending time with Mrs. Moutrie that he was a wonderful, loving father who raised and educated two daughters, both of whom went on to prominence in the field of education.

Dr. Lushington and Dr. Lewis were at the forefront of the American veterinary profession, a field that is constantly changing. Until World War I, veterinarians were all men, and worked on large animals primarily. Today, the patients are predominantly pets, and women dominate veterinary classrooms. Over time, different animals and different animal diseases have changed how vets use their time and expertise. The Penn Veterinary School has sur-

vived these changes, which is an amazing economic feat. Penn’s administration is a model of tolerance, and there are support centers for students in crisis. The School has learned that alumni veterinarians will stay connected to Penn throughout their lives if their school experience has been welcoming and positive.

The School has reached out to embrace its past in many ways. One example is through the gallery of photographs in the lobby of the Gladys Hall Rosenthal Building. Some photos depict century-old veterinary classes, professors, and buildings. Occupying a prominent space in the lobby gallery is a black-and-white photograph from the 1890s of a well-dressed, bespectacled young man—the picture of Dr. Lushington that I first saw on the Internet. With the placement of his photograph in the lobby, Dr. Lushington, one of our most distinguished alumni, now welcomes all who enter our School.

Alice S. Weiss, V’84, is a veterinary medical officer at the FDA and a writer in Bethesda, Md.

Pfizer Animal Health Gift

Pfizer Animal Health donated funds for the purchase of a plasma screen to be installed in one of the School’s Multidisciplinary Laboratories. This will greatly enhance the teaching of histology and histopathology during rounds as images can be projected onto the screen from a microscope. These images are superior to those seen through a multihead scope and will provide students with more information.

Volunteers Needed to Foal Sit

New Bolton Center's Neonatal Intensive Care Unit (NICU) needs volunteers to "foal sit." The NICU operates this volunteer program from January through June, enlisting up to 100 volunteers. The foal sitters are trained to 'sit' with critically ill newborn foals to insure that the patients' tubes and catheters are not pulled out. Other duties may include assisting with a variety of diagnostic tasks, restocking medical supplies, watching high risk pregnancy mares for signs of foaling, and helping with standing and turning of the foals and other neonates. Volunteers are needed 24 hours a day, 7 days a week. The George D. Widener Hospital, the School's teaching hospital for large animals, is located at New Bolton Center, near Kennett Square, Pa.

"Last spring we treated more than 180 neonates, primarily foals, but also calves, kids, lambs, and crias, which are baby llamas or alpacas," says **Dr. Jon Palmer**, director of the Neonatal Intensive Care Unit. "Our Neonatal Intensive Care Unit specializes in treating critically ill farm animal neonates. Young animals

less than 30 days old are considered neonates." The NICU staff not only cares for neonates but also attends approximately 100 births and cares for almost 70 high-risk pregnancy cases. The busy NICU sends 84 percent of the neonates home. "Our high success rate is in large part



due to the team approach to our intensive care, and a major part of that team is focused on nursing care. The nursing effort is directed by specialized veterinary nurses who are helped by lay nursing assistants and a large group of community volunteers whom we call 'foal sitters,'" says Palmer.

Foal sitters come from all walks of life.

"Although many of our volunteers are college students thinking about becoming veterinarians, or local horse owners wanting to lend us a hand, we also have RNs looking for a different experience, accountants wanting to spend some time with animals, high school students (16 years or older) fulfilling community service assignments, employees from local businesses that encourage community outreach, and even an occasional senior citizen," explains Patti Gillen, volunteer coordinator. "You don't need horse experience or a medical background. The most important qualifications are compassion and responsibility. This opportunity to 'sit' with these little patients is very gratifying and worthwhile when you see your foals progress from lying in a coma to running and bucking at the side of their dam as they play outside for the first time." The NICU staff is currently organizing the Foal Sitting program for this spring. For information about joining the Foal Sitting team, contact the Foal Sitter Hotline at New Bolton Center at 610-925-6445 or email <foalsitters@vet.upenn.edu>.

Field Service

(continued from page 5)

Perhaps a part of the job as enjoyable for Dr. Jorgensen as treating horses is interacting with the School's widely diverse clientele; horse ownership sometimes is their only common characteristic. Over the course of any given day, the Field Service team encounters a true cross-section of society, and today was no exception. From professional stable owners managing other people's horses, to people keeping a little pony for their children to care for, to affluent pleasure-horse owners—all had animals that needed expert veterinary care, and all turned to Penn's Field Service.

Back at the New Bolton campus, the other Field Service trucks gradually roll in, and students and doctors from separate teams reconvene in the parking lot to discuss their day. Feelings of accomplishment and camaraderie are apparent amongst the group, and several students linger as the others head to their cars or their dorm rooms. Tomorrow there will be other cases to treat, and other opportunities to learn—for both veterinarians and students alike.

New Horses for the Carriage Program

The School received a very generous donation of five nationally registered horses to its Carriage Program from Ms. Gloria Austin of Weirsdale, Fla. Ms. Austin is renowned among coaching and carriage driving enthusiasts for her high-profile participation in the sport of pleasure driving, as well as for her remarkable collection of antique coaches and carriages housed at the Austin Carriage Museum in Weirsdale.

Ms. Austin's decision to help the Carriage Program at New Bolton Center grew out of Penn's historical connection to Mr. Fairman Rogers, a nineteenth-century Penn graduate and trustee, who was directly involved in the decision to establish Penn's Veterinary School in 1884. Fairman Rogers wrote the classic reference and historical work, *The Manual of Coaching*. His rare book collection on the

horse and equitation is housed in Penn's Van Pelt Library.

Penn's Carriage Program is an important outreach, education, and development tool that has helped raise significant funds for New Bolton Center. Because of the loss of its team of donated Morgan horses through illness earlier this year, the program was at risk. Generous friends of the School loaned a pair of Hackney-Clydesdales to New Bolton Center to ensure that the School could participate in several important benefit events during the summer.

Ms. Austin's gift of her highly trained Kladruby grays and National Show Pintos ensures that the School, by virtue of this special program, can continue to demonstrate to a wide variety of local and regional constituents how important and value veterinary medicine can be.

Joan Hendricks, V'79, Henry and Corinne R. Bower Professor of Animal Medicine, was honored by the Pennsylvania Veterinary Medical Association and presented the PVMA's Distinguished Service Award.

Dr. Bernd Driessen, assistant professor of anesthesia, gave a presentation in July at the Veterinary Medical University in Vienna, Austria entitled "The Patient in Renal Failure: Perioperative and Anesthetic Management." Dr. Driessen and collaborators from the University of California presented abstracts at the 77th Clinical and Scientific Congress of the International Anesthesia Research Society, Fort Lauderdale, Fla. in March; at the IXth International Symposium on Blood Substitutes, Tokyo, Japan in March; and at the Experimental Biology Meeting 2003, San Diego, Calif. in April.

Amy Bogdanoff, special events coordinator, earned a master's degree in public relations from Rowan University in August.

Dr. Gerhard Schad, professor of parasitology, presented the Roy C. Anderson Memorial Lecture at University of Guelph in November.

Drs. Alexia McKnight,

lecturer in radiology at New Bolton Center,

Tobias Schwarz, assistant professor of radiology at the Ryan Veterinary Hospital, and **Lisa S. Ziemer, V'98**, senior research

associate in radiology,

are new diplomates of the American College of Veterinary Radiology.

Dr. Gary Smith, professor of population biology and epidemiology, was an invited speaker at a conference on "Mathematical Modeling of the Spread of Agricultural Bioterrorism Agents" held jointly by the Armed Forces Medical Intelligence Center and the Scientific and Technical Intelligence Committee at the Mitre Corporation in Virginia in September.

Deborah Silverstein, V'93, staff veterinarian in critical care, was elected to the Board of Regents of the American College of Veterinary Emergency and Critical Care.

Dr. Karen Rosenthal, director of the Special Species Clinic, received the 2003 Distinguished Alumni Award from her alma mater, North Carolina State University College of Veterinary Medicine.

Dr. Corinne Sweeney, professor of medicine, was appointed in September by the American Association of Veterinary State Board Executive Committees to the nine-member PAVE Board (Program for the Assessment of Veterinary Education Equivalence). Dr. Sweeney is the past president of the American Association of

Veterinary Clinicians, the organization best known for conducting the Veterinary Intern-Resident Matching Program. In November, Dr. Sweeney traveled to Seville, Spain to speak at the IV International Congress of Equine Medicine and Surgery at SICAB 2003.

Dr. Pamela Wilkins, assistant professor of medicine, traveled to Fort Worth, Texas, to help treat an Asian elephant at the zoo that was born six months premature. Despite the efforts of the veterinarians, the animal could not be saved. Dr. Wilkins presented talks at the Central Veterinary Conference in Kansas City, Mo. in August. Her topics were: Diagnosing and Treating Anemia in Horses and Foals; Use of Blood and Blood Products in Equine Practice; Botulism in Foals; Common Problems of the Critically Ill Neonate; Equine Emergency and Critical Care: An Emerging Specialty; Diagnosing and Treating Hemothorax and Pneumothorax in the Horse; Liver Diseases of Horses; and Practical Solutions to Neonatal Problems. In September, at the International Emergency Critical Care Symposium in New Orleans, she

donors to investigate the role of alpha-MSH in energy homeostasis in horses. He spoke at the Second International Conference on Laminitis in November in Palm Beach, Fla.

Dr. James Serpell, Marie A. Moore Associate Professor for Animal Welfare and Humane Ethics, was elected President of the International Society for Anthrozoology in August.

Dr. Gary Althouse, associate professor and chief, section of reproduction, presented an invited paper entitled "Bacteriospermia in extended porcine semen" at the 5th International Conference on Boar Semen Preservation in Doorwerth, The Netherlands in August. He also presented an invited paper from his laboratory research group entitled "Ubiquitination of retained distal cytoplasmic droplets on ejaculated porcine spermatozoa revealed by IFA in situ" at the Society for Theriogenology Annual Conference held in Columbus, Ohio in September.

Dr. Peter Dodson, professor of anatomy, was a guest of the Japanese government for 10 days in March. He gave a talk at the National Science Museum in Tokyo, and participated in a

symposium on the Mesozoic Life of Hokkaido in Sapporo. He was recently honored by his former student, Hailu You, GR'02, and his Chinese mentor, Dr. Dong Zhiming, who named a primitive horned

dinosaur from Inner Mongolia *Magnirostris dodsoni* (meaning Dodson's big nose!).

Chick Weisse, V'98, lecturer in surgery, presented two papers at the 13th Annual ACVS Veterinary Symposium, Washington, D.C. For titles and authors of abstracts, please refer to our new web page, "Recent Research" <www.vet.upenn.edu/newsandevents/news/recentresearch.html>.

Meryl Littman, V'75, associate professor of medicine, wrote a chapter about Lyme disease in an issue of the 2003 *Veterinary Clinics of North America* entitled "Emerging and Re-emerging Infectious Diseases." In May, she attended the Soft Coated Wheaten Terrier Club of America (SCWTCA) Health Conference in Keystone, Col. and spoke on several topics.

Dr. Paula Henthorn, associate professor of medical genetics, also spoke at the meeting. In September, Dr. Littman spoke to the Soft Coated Wheaten Terrier Association of Canada in Ottawa about the diseases to which Wheatens are predisposed. In October, Dr. Littman and **Dr. Margret Casal**, assistant professor of medical genetics, were the speakers at the health symposium organized by the Montgomery County

Rosettes & Ribbons

some recent accomplishments of note at the School

spoke on: Controversies in EHV-1 Myeloencephalopathy; Neonatal Emcephalopathy: The Veterinary Perspective; and Problems with Oxygen Delivery.

Dr. Andras M. Komaromy, research associate in ophthalmology, became a diplomate of the American College of Veterinary Ophthalmologists this fall.

Jennifer Baez, V'92, assistant professor of immunology/oncology; **Lillian Duda, V'90**; **Drs. Karen Oberthaler, Beth Overlay, V'00**, and **Karen Skorupski**, residents in oncology; and **Dr. Karin Sorenmo**, assistant professor of clinical oncology, presented five abstracts at the 23rd Annual Conference of the Veterinary Cancer Society in Madison, Wis. in September. For titles and authors of abstracts, please refer to our new web page, "Recent Research" <www.vet.upenn.edu/newsandevents/news/recentresearch.html>.

Mark T. Donaldson, V'93, assistant professor of medicine, presented an abstract at the American College of Veterinary Internal Medicine in Charlotte, N.C. on endocrine function testing in horses. He received a grant from the Raymond Firestone Research Trust and private

Kennel Club in Lionville, Pa. Dr. Littman and **Dr. Urs Giger**, Charlotte Newton Sheppard Professor of Medicine, were on the panel of the SCWTCA Health Forum, held during the Montgomery K.C. All Terrier Show weekend.

The PennHIP seminar, in conjunction with the ACVS meeting in Washington D.C. in October, was sold out. **Gail Smith, V'74**, professor of surgery, **Pamela McKelvie Smith, V'81**, **Dr. Erin Paster**, PennHIP fellow, and **Thomas Gregor**, PennHIP data analyst, conducted the seminar. PennHIP seminars are planned in conjunction with the Western Veterinary Conference in February and the Penn Annual Conference in March.

Dr. Charles Vite, senior research investigator in neurology, successfully defended his thesis that was performed in the laboratory of **John Wolfe, V'82**. The title is *Clinical/Pathological Assessment and Quantitative Nuclear Magnetic Resonance Imaging of Gene Therapy of a Naturally Occurring Central Nervous System Disease in the Cat*.

Dr. Fabio Del Piero was promoted to associate professor of pathology.

Patricia Sertich, V'83, associate professor of reproduction, presented three lectures at the Association Veterinaire Equine Francaise Annual Meeting in Montpellier, France in October: "How to do a transrectal ultrasound of the placenta at the end of gestation?" and "Problems during late gestation" (two parts). This group is the French equivalent to the American Association of Equine Practitioners.

Mark Haskins, V'69, professor of pathology, presented a paper, "Intravenous retroviral gene therapy in dogs with mucopolysaccharidosis VII," at the European Biotechnology Crossroads meeting in Nantes, France in September. In November, he participated in the MPS Symposium, *At the Frontier of MPS Research*, held in Los Angeles. His paper was "Long-term results from the liver-directed, retroviral gene therapy in MPS VII dogs." Also in November, Dr. Haskins traveled to Fulda, Germany to present a paper at the International Symposium on Lysosomal Disorders: "Diseases, treatment, and pathophysiological aspects." He received a five-year renewal of a grant, "Animal Models of Human Genetic Disease," to discover, develop, and define animal models of human genetic disease, held for 14 years by **Dr. Donald Patterson**, Professor Emeritus of Medical Genetics. Dr. Haskins also received a subcontract on a grant held by Dr. Kathy Ponder, Washington University School of Medicine, to investigate gene therapy in MPS I dogs.

Dr. Robert Poppenga, associate professor of toxicology, received a Service Award from the

American Board of Veterinary Toxicology for "his service and vision as secretary-treasurer and president of the ABVT."

Dr. Cynthia Otto, associate professor of critical care medicine, presented a paper at the 141st AVMA Convention, in Denver in July, entitled "Medical surveillance of dogs deployed to the World Trade Center and the Pentagon." She was a keynote speaker in September at the European College of Veterinary Internal Medicine Congress, Uppsala, Sweden, and presented "Consequences of sepsis: New concepts in acute lung injury" and "Management of sepsis: What's hot, what's not." Dr. Otto was elected to the John Morgan Society at Penn.

Amy Shields, CVT, has been appointed the new associate director of veterinary technician recruitment.

Dr. Andrei Thomas-Tikhonenko, assistant professor of pathology, received a four-year grant from the National Cancer Institute to study "Interplay between Pax5 and Myc in B-Lymphomagenesis." **Dr. Michael Atchison**, professor of biochemistry, is a collaborator on the project. Dr. Thomas-Tikhonenko has joined the editorial board of the journal *Cancer Biology & Therapy* and the Advisory Board of the "Myc Cancer Gene" bioinformatics hubsite funded by the National Library of Medicine.

Margaret M. Sleeper, V'93, assistant professor of cardiology, is an endurance rider. In March she competed at the World's Most Preferred Endurance Ride in Dubai and placed sixteenth. She was chosen to represent the USA East Endurance Team at the Pan American Endurance Championship Ride in September. At the Argentina National Championship ride in November, she placed seventh. Dr. Sleeper was selected for the National Endurance Squad (for the World Championships next year).

Dr. Mark Rondeau, lecturer in medicine, is a diplomate of the American College of Veterinary Internal Medicine.

Kristin Budenich, V'06, has been selected by the Morris Animal Foundation as the Ballard Student at Penn. Ballard students represent the Foundation at their schools and reach their peers through presentations, bulletin boards, and exhibits.

Lillian Aronson, V'92, assistant professor of surgery, conducted a seminar for veterinarians and veterinary students at the University of the Republic-School of Veterinary Medicine in Montevideo, Uruguay in August.

A number of faculty and staff have joined the 25-Year Club at Penn: **Christine M. Chapman**; ULAR, **Ronald Funaro**, building services supervisor; **Meryl Littman, V'72**, associate professor of medicine; **Beth A. Miller**,

admissions/New Bolton Center; **Barry Stupine**, vice dean for administration and finance and director, Ryan Veterinary Hospital; **Dr. Corinne Sweeney**, professor of medicine; and **Dr. Robert Whitlock**, associate professor of medicine.

Dr. Alexander Reiter was appointed assistant professor of dentistry.

Mary Beth Callan, V'88, was promoted to associate professor of medicine.

Dr. Samuel Chacko, professor of pathology, and director of the George M. O'Brien Urology Research Center in the Division of Urology, School of Medicine, and his colleagues had a grant renewed and increased by the NIH. The five-year grant of \$4.47 million is for the research program *Remodeling of Urinary Bladder Smooth Muscle in Outlet Obstruction*. The Center is composed of faculty in the School of Medicine, School of Veterinary Medicine, and School of Dental Medicine, as well as investigators in Pediatric Urology at CHOP.

Dr. Shelley Rankin, assistant professor of pathology, gave a presentation for the Division of Health Quality Promotion at the CDC in November entitled: "Antimicrobial Resistant Bacteria and Companion Animals: Implications for Public Health." In July, Dr. Rankin gave a presentation for the Massachusetts State Department of Public Health.

Dr. Brinster Honored

Ralph Brinster, V'60, Richard King Mellon Professor of Physiology, was inducted into the National Institute of Child Health and Human Development (NICHD) Hall of Honor. The ceremony took place on September 22 on the National Institutes of Health campus in Bethesda, Md. Dr. Brinster, the only veterinarian among the 15 Hall of Honor scientists, was honored "For discovering a method for in vitro culture of animal embryos that opened new possibilities in reproductive biology, and pioneering the use of new techniques in developmental biology and molecular genetics to produce transgenic animals, a key technology in advancing the genetic revolution."

The NICHD Hall of Honor recognizes scientists supported by the Institute for exceptional contributions to advancing knowledge and improving maternal and child health. The NICHD celebrates its fortieth anniversary this year.

Tucker Battles Tetanus—And Wins!

by Helma Weeks

Tucker, a four-month-old male bullmastiff, spent September at the Ryan Veterinary Hospital, fighting for his life—and winning the battle. His owners, Dr. and Mrs. Arthur Gold, had noticed on September 1 that the young dog seemed to have a different look; his wrinkles had suddenly deepened, his muzzle appeared wider, and his ears were pulled back. The next day, the dog had trouble standing and swallowing, he trembled continuously, and his tail was stiff and carried away from the body.

Alarmed, they took him to **Christopher Keefe, VMD**, their veterinarian in Cherry Hill, N.J. Dr. Keefe made the diagnosis of tetanus, administered intravenous antibiotics, and transported Tucker to Ryan's Emergency Service. Here Tucker received tetanus antitoxin to bind the circulating toxin and thus prevent further toxin binding in the nervous system. "Tetanus is caused by a toxin produced by *Clostridium tetani*, an anaerobic bacterium," says **Dr. Adrienne Bentley**, a Ryan intern and Tucker's primary doctor. "The toxin prevents the release of inhibitory neurotransmitters in the brain and spinal cord, causing the muscles to contract, resulting in limb rigidity. Muscles of the limbs and face, as well as muscles involved in respiration, can be affected. When muscles of the face and jaw are affected, the jaw becomes rigid, and the animal can't open its mouth."

"We administer antitoxin to bind the toxins in the blood. Unfortunately, the antitoxin does not bind with the toxin already in the central nervous system. Binding of tetanus toxin to the inhibitory neurons is irreversible, so recovery depends on regeneration of these neuron terminals, which can take weeks."

Clostridium tetani can be found in its dormant spore form in the soil as well as indoors. The bacteria enter the body through a wound deep enough to create anaerobic conditions and then proliferate and produce toxin. Susceptibility to tetanus varies among species and is thought to be related to variability in the toxin's ability to bind to nervous system tissue. Dogs and cats are considered relatively resistant, whereas horses and humans are quite susceptible. As such, horses and humans are routinely vaccinated against tetanus, but no such vaccine exists for dogs and cats. Tucker was

checked for wounds, but none were found.

He was transferred to the Neurology service, and when his muscle rigidity progressed, he was admitted to the ICU, where he was treated aggressively with sedatives and muscle relaxants. "Tetanus patients have to be sedated because any stimulus causes excitement of the nervous system, resulting in muscle contractions," says Bentley. "This in turn causes the body temperature to rise to dangerous levels." When the dog was sedated, clinicians were able to open his mouth and discovered that all four deciduous canine teeth appeared discolored and that the pulp was exposed. "Exposed pulp represents a possible route of entry for the bacteria, and it's possible that one of these teeth was the source of infection," Bentley says. "In the absence of another wound, we recommended removal of these teeth in the event that they represented the route of entry of the organism." The most important aspect of treating tetanus is identifying and removing the source of infection because the bacteria continually produce toxin.

Tucker had a dental procedure to extract the deciduous teeth. A catheter was placed into his jugular vein to allow blood sampling and administration of parenteral nutrition (intravenous feeding). Teeth and tissue samples were submitted to the diagnostic lab to confirm the diagnosis of tetanus and the source of the infection. Cultures failed to grow the clostridium, which is not unusual, as it is an anaerobic organism and the slightest exposure to air will kill the bacteria. Histopathology also was inconclusive. Although the teeth could not be identified as the definite source of the infection, the pathologist identified bacteria that were consistent with clostridial organisms. Tucker's ultimate recovery suggests that the teeth were the source of infection, since he likely would not have recovered without removal

of the source. To date, there are no reports of infected teeth as the source of tetanus. However, the oral cavity is commonly discussed as a possible source of tetanus in puppies that are losing their deciduous teeth.

Tucker was placed in a corner run in the ICU. It was draped and kept dark to reduce external stimuli. Everyone in ICU spoke in hushed voices for quite a few days. The pup received antibiotics, parenteral nutrition, muscle relaxants, and sedatives. Tucker lay on his side and breathed on his own. There wasn't much more that could be done at that point. He needed intensive nursing care, which was

provided around the clock. Six days into the illness, Tucker developed upper airway obstruction due to excessive saliva and mucus production. His mouth was suctioned and he received additional sedatives. Three days later, clinicians radiographed his chest because they were worried that he had developed pneumonia due to his immobile and recumbent state. Although he was turned frequently, this was no substi-



Tucker after recovery and Dr. Bentley.

tute for regular movement and being up on the chest (sternal). Tucker was unable to turn himself or maintain himself in a sternal position because of his muscle rigidity and the sedatives that were administered. The radiographs showed evidence of mild pneumonia, and he received a broad-spectrum antibiotic.

During the night, Tucker's blood gas values deteriorated and he was placed on the ventilator. "We don't know whether the muscles that move the chest wall became fatigued, or if his disease progressed to involve the muscles of respiration," says Bentley. "He needed the ventilator to help him breathe."

Clinicians were also worried that they had not identified the source of the infection because the deterioration in Tucker's breathing

may have represented progression of the tetanus. CT scans were performed to look for an abscess in the mouth and the abdomen. The scans were negative. During the anesthesia for this procedure, Tucker initiated some breaths on his own.

After about 24 hours of mechanical ventilation, his sedation and ventilatory support were decreased. Twelve hours later, Tucker was disconnected from the ventilator because he was able to breathe on his own, and he never looked back.

On Monday, September 15, the muscle rigidity seemed worse, but by the next day he improved. "We think the increased rigidity may have been due to the withdrawal of all sedatives," says Bentley. "It is also possible that recovery from generalized tetanus in dogs has an inherently variable course. We just don't know, since dogs with generalized tetanus like Tucker, in which there is respiratory compromise, rarely recover. The dedication of Tucker's owners and our entire hospital staff, as well as Tucker's cooperative and amiable nature, undoubtedly made his recovery possible. Neurology resident **Dr. Mark Troxel**, the entire Neurology Department, and the ICU faculty and staff were instrumental in Tucker's recovery." The Golds became regulars in the hospital, visiting every day of Tucker's three-week hospitalization. Tucker certainly had no shortage of visitors after his owners left for the day.



He became very popular with students, nurses, doctors, and support staff.

Beginning Tuesday, September 16, Tucker improved steadily. The tremors subsided, though his muscles remained rigid. Normal function seemed to return to Tucker's tail first, as he would sit in a supportive trough, wagging his tail at everyone passing by. He would intermittently try to move out of the trough, which amounted to little more than thrusting himself out of it onto the floor into an unnatural

position. His jaw finally relaxed, and he began to flex and even move his limbs. Tucker was then placed in an orthopedic sling. This allowed him to bear weight and move his limbs, until one day when he was discovered at



the other end of the hallway, having moved the sling with him. After a seemingly interminable period of unrelenting illness, Tucker had suddenly begun to improve dramatically every day. "During this recovery period, I couldn't wait to come to the hospital each day to see what Tucker could do. The Golds and I would spend each visit marveling at the slightest improvement," says Bentley.

Radiographs on September 22 showed that the pneumonia had resolved. Tucker was eating and drinking on his own and even was taken outside for brief walks. During this time, the inquisitive nature Tucker's owners had often spoken of returned. Now able to walk, Tucker would sample cotton balls, tape, and everything else he could find. He left the hospital on Thursday, September 25 to continue his recovery at home.

"His prognosis at this point is excellent," says Bentley. "I saw him recently, and he is gaining weight, and his legs are straightening out. His face has finally relaxed so that he has the droopy expression characteristic of a bullmastiff. We expect that his conformation and musculature will return to normal as he continues to recover."

Tetanus

Clostridium tetani is an anaerobic bacterium that is widely distributed in the soil. *C. tetani* usually enters the body through a wound, and in anaerobic conditions the spores germinate and produce toxin. The toxin usually spreads by traveling along peripheral nerves to the spinal cord, but can also spread through the body via the blood. The toxin acts on the central nervous system by interfering with the release of inhibitory neurotransmitters. Muscles contract and become spastic, and affected animals are particularly sensitive to stimulation.

The incubation period for tetanus varies from three to 21 days, although clinical signs usually are seen within five to 10 days of infection. The initial signs typically reflect the location of the source of infection. Localized tetanus, such as rigidity of one leg, is more common than generalized tetanus in dogs and cats due to their relative resistance. Involvement of the facial muscles typically manifests as inability to open the jaw (trismus; a.k.a. "lockjaw") with lips drawn back (risus sardonicus), and erect ears. Diagnosis is usually based on finding a wound in the presence of typical signs. In addition to identifying and removing the source of infection, treatment includes antitoxin, antibiotics effective against *C. tetani* such as penicillin and metronidazole, sedatives and muscle relaxants, and supportive care.

Most dogs with localized tetanus or generalized tetanus without respiratory compromise recover if given enough time and supportive care. The prognosis usually is guarded-to-poor in dogs with generalized tetanus and respiratory complications. Recovery from tetanus does not provide future protection against the disease, and vaccination for dogs is neither available nor recommended.

Although the disease is rare in dogs, dog owners should seek veterinary attention for any wounds noticed on their animals. Although humans are susceptible to tetanus, it is not considered contagious from an affected animal since a wound is necessary for incubation of the bacteria. Exposed people should consult their physicians for specific recommendations.

Family Weaves Golden Thread Amidst Tragedy

by Joan Capuzzi Giresi, C'86 V'98

Thomas J. Weiner, V'78, is doing his part to crack down on human tragedy—the kind that befell him and his wife nearly five years ago when their athletic, seemingly healthy son died of a cardiac arrest while away at college.

Weiner and his wife Beverly have established the Matthew R. Weiner Cardiomyopathy Study Fund—named for their deceased son—which is being conducted at the Ryan Veterinary Hospital at Penn by assistant professor of cardiology **Meg M. Sleeper, V'92**. The cardiomyopathy study, using various breeds of dog, tracks blood levels of cardiac troponin I—an enzyme released from damaged heart muscle cells—in conjunction with echocardiogram and 24-hour holter monitor results.

The central hypothesis, that cardiac troponin I is a marker for arrhythmias with or without cardiomyopathy, could lead to the development of a screening test for increased risk of fatal arrhythmias in animals and people. Such a simple tool would be particularly useful in today's medical economy; Weiner explains, "Because of the insurance industry, we can't say, 'I want my perfectly healthy child to have EKGs and echos.'"

Since Matt's death, Weiner and his family have also become vocal advocates for the placement of defibrillators in public places and for organ-and-tissue donation. Of his family's targeted activism, he says, "We're trying to live our lives in a way that would make Matt proud of us."

Pride was a sentiment Matt's parents knew well. Their children have always been accomplished in mind and body. Ivy Leaguers all three, twins Matt and **Cristina (Tina), V'07**, and Kevin grew up nationally ranked swimmers.

Matt enrolled in the prestigious architecture program at Princeton University, where he was a member of the swim team. In March 1999, during his freshman year, he joined some teammates for a game of pick-up basketball. While playing, he collapsed and died of sudden cardiac arrest, ventricular arrhythmia.

The family was completely unprepared for the early death of a son and brother who had no known heart ailments. "He was not sick a single day in his life," Weiner laments.

If the devastation of losing a 19-year-old

child granted him license to dwell on the unfairness of life, Weiner instead drew on his inner effervescence to stay buoyant. Born in Newark, N.J., Weiner grew up in South Jersey as one of seven children in a household full of pets and, he says, "lots of optimism."

While in Rutgers University's Animal Science Program, he met fellow student Beverly Anne LoBiondo, whom he married in his first year of veterinary school. He said that Penn prepared him well—perhaps too well—for private practice. "Academically, I felt good coming out of school," he says. "But in clinics there, you see the extraordinary rather than the everyday. You come out thinking that every scratching animal has some autoimmune disease."

After graduation, Weiner spent two years working for a small-animal practice. But the long hours convinced him that the only way to successfully meld career and family was to operate his own home-based practice. Beverly conducted market research and concluded that the small sub-

urb of Tabernacle, N.J., was primed for a new veterinary hospital. In 1980, the twins just 10 months old, the Weiners bought a home there and converted its three-car garage into a small-animal clinic.

"When my children woke up in the morning, they could run in to say hi," Weiner recalls. "I was there when they got on the school bus and when they got off."

Running his own solo practice, with Beverly as his lab director, offered him the flexibility to adjust his schedule to Halloween parades, ball games, and swim meets. He had struck a balance in life, relishing his play as well as his work.

Weiner says he feels indebted to the veterinary school for helping him establish a family-friendly career replete with autonomy. "The school has allowed me to have a profession in which I could schedule my work so that raising our family comes first."

To help return the favor to the School, Weiner helped solicit his classmates for the Class of 1978 Endowed Scholarship Fund, which became the most successful reunion

fund thus far, with gifts and pledges totaling nearly \$140,000. For his dedication and service to the School, Weiner recently was elected to its Board of Overseers.

Back at home across the bridge, the Weiners had always put their children above everything. They chose to send their kids to the prestigious Peddie School for the progressive education coupled with the added bonus of a nationally ranked U.S. swimming program.

Though his three children held common interests, Matt occupied a unique position in the family, recalls Weiner. "He was the hub

around which the wheel turned, as twin to Tina and older brother to Kevin."

Cristina, 23, whose swimming ability brought her as far as the U.S. Olympic Trials in 1996, is a Harvard graduate and first-year veterinary student at Penn with an interest in lab animal medicine and aquaculture. Kevin, 21, a senior at Princeton—where he is the captain of the swim team—is studying neuroscience, with a focus on brain

mapping in marine mammals.

Both Kevin and Cristina have become proponents of organ-and-tissue donation awareness. After their brothers' death, the family listed him as a donor because they recalled a family conversation a few years prior in which Matt expressed the desire to donate his organs after death.

At Harvard, Cristina started Youth for Organ Donation Awareness (YODA), a non-profit organization whose mission is to spread awareness throughout college campuses about the national organ shortage. YODA chapters have since sprouted up on campuses throughout the country, and Cristina plans to establish one at Penn. Kevin, who started a YODA chapter at Princeton, is waiting a year to apply to graduate school so he can dedicate himself to the organization.

Tom Weiner is petitioning his state legislature to allow families to obtain information about those who have received their loved ones' tissue and organs. "It is critical information that does lend some level of comfort to the

(continued on page 20)



President's Message

Highlights and Insights About Your Veterinary School

Beginning with this issue, the "President's Message" column will be a regular feature of *Bellwether*. At meetings of the Veterinary Medical Alumni Society Executive Board, we are fortunate to hear firsthand from Dean Kelly,



James V. Stewart, V'68,
President, Veterinary
Medical Alumni Society

department chairs, and members of the administration, and I am pleased to have the opportunity to share with you the news and accomplishments of your alma mater.

This fall,

Dean Kelly and his staff have been busy managing the budget as the School's FY'04 Commonwealth of Pennsylvania appropriation has yet to be signed into law. Last spring, due to the uncertainty of the appropriation, the School presented a balanced budget to the University based on a potential 5 percent or \$1.9 million reduction. This caused a tuition increase of 4 percent, a reduction in the grant given to Pennsylvania residents from \$5,400 to \$3,500, and, for the first time, the imposition of a technology fee of \$350 per student.

In a time of fiscal restraint, maintaining competitive salaries with the private sector in specialty areas are almost impossible. Nevertheless, Penn has successfully retained one faculty member and two recent graduates of its residency program in radiology who have recently become board-certified. The School is able to retain and attract faculty, in part, by remaining at the forefront of clinical care.

Clinical services at the Matthew J. Ryan Veterinary Hospital will be enhanced in the near future by the addition of a hemodialysis unit, which will be one of only a handful in the country, to save patients with acute renal failure, and by the construction of a new Radiation Therapy and Imaging Center, to be located in what is now the Hospital garage, which will feature a linear accelerator and MRI. At the George D. Widener Hospital for Large Animals, digital radiography has expanded the diagnostic and teaching modalities at New Bolton Center.

Our School's world-class reputation as a leading research institution is due to the innovative work of its faculty. In May, researchers at Penn, led by Hans Schöler, were featured on the cover of *Science* for their work in producing mouse eggs in vitro directly from embryonic stem cells. This fall, **Ralph Brinster, V'60**, was inducted into the National Institute of Child Health and Human Development's Hall of Honor, which recognizes scientists supported by the Institute for exceptional contributions to advancing knowledge and improving maternal and child health. This came on the heels of Dr. Brinster being awarded the Wolf Prize, one of the most prestigious scientific awards in the world, last spring.

This mix of groundbreaking research in the basic sciences combined with the advanced clinical care available at the Ryan and the Widener hospitals makes the collage of achievement at our School second to none in the world.

After several years of planning and fund raising, groundbreaking for the new Teaching and Research Building on the Philadelphia campus will be held on Saturday, April 17, 2004. This new building will contain five floors, including a vivarium in the basement, two floors of teaching and library space, and two floors of research laboratories. This state-of-the-art facility, which is to be completed in time for the start of classes in the fall of 2006, will ensure Penn's continued preeminence in veterinary medicine. Donors to the building deserve more credit than they will ever receive. In a difficult economy, raising more than \$47 million is a credit to the efforts of the entire School community and, in particular, to the staff of the School's Office of Development and Alumni Relations, who coordinated the fundraising campaign.

In this season of giving, I hope that you will help us meet The Landeau Challenge. **Laurie J. Landeau, V'84 WG'84**, has issued a challenge to inspire alumni to make their first gift or to increase their past support to the Veterinary Student Scholarship Fund, which supports the School's highest priority—the training of future veterinarians. If alumni contribute a total of \$150,000 in new and increased gifts to the Veterinary Student Scholarship Fund by June 30, 2004, Dr. Landeau will contribute

\$150,000 to the School. There has never been a better time than now to support our future colleagues!

While talking of raising money, please consider funding an Opportunity Scholarship. Originated and chaired by **Charlie Raker, V'42**, the program represents the best win-win opportunity available. By pledging \$2,500 a year for four years, you will provide a single student with a total of \$10,000 in financial assistance. You will not only feel good by serving as a mentor, you will share in the thrill, even if vicariously, of being a veterinary student again. As my wife, **Brenda, V'70**, and I know firsthand, your support will never bring you so much goodwill and satisfaction. For more information, contact myself or Dori Myers at the School at (215) 746-7438 or via e-mail at <dmyers@vet.upenn.edu>.

Finally, your input is welcome and appreciated. The Executive Board wants you involved; Penn Veterinary Medicine is your School. It is a joy for us to work on behalf of and to participate in the School's exciting future. We want all alumni to experience this satisfaction.

Please feel free to contact me via e-mail at <DrsJBSTewart@aol.com> with your comments and suggestions. For more information on the Veterinary Medical Alumni Society, please visit <<http://alumni.vet.upenn.edu/vmas.html>>.

Season's greetings and best wishes for the New Year!

Alumni: Sign-Up for Monthly E-mail Newsletter

Send your e-mail address to Joshua E. Liss, Director of Alumni Relations and Annual Giving, at <lissj@vet.upenn.edu>, and you will join the more than 1,500 alumni who receive a monthly e-mail newsletter with news and events of interest to you!

VMAS Executive Board/Nestlé Purina Happy Hour

A Happy Hour, sponsored by the Veterinary Medical Alumni Society Executive Board and Nestlé Purina, was held in the Rosenthal Student Lounge on September 12, 2003. The Happy Hour gave members of the Executive Board the opportunity to welcome first-year students to Penn, as well as to socialize with their future colleagues from all the classes. Nestlé Purina continued its generous support of students by providing third-year students with free scrub shirts, which were distributed at the Happy Hour.

"Purina is proud to donate these scrub shirts, and to support the Happy Hour the past two years," said Laura Eirmann, D.V.M., manager of regional veterinary communications, North America, for Nestlé Purina. "Penn Veterinary Medicine students and alumni clearly possess exceptional skills and expertise," she continued. "While it is apparent they are an outstanding resource to the School, companion and large animal hospitals, and the larger veterinary community, their positive impact also is felt by others outside the university—by both animals and humans alike."

Emily Jones, V'05, one of Nestlé Purina's student representatives, commented, "Nestlé Purina has been so generous in giving us the scrub shirts and in sponsoring the Happy Hour. On behalf of all the students, we are grateful for their continued support of our activities."



Jack Bregman, V'66, and Daniel Bleicher, V'53, with students.



Nestlé Purina student representatives Meagan Connolly, V'06, and Emily Jones, V'05.

Golden Thread

(continued from page 18)

donor families," Weiner says. The Weiner family is comforted by knowing that Matt lives on in his many tissue and organ recipients.

Weiner is also working to promote placing automatic external defibrillators (AEDs)—small, user-friendly devices that can be placed over the chest to assess heart rhythm and administer shocks if necessary—in public places. Such a device, which might have saved his son's life were one available, costs \$1,800 each, according to Weiner, and is "inexpensive when you consider what it can do." Weiner is raising awareness of the importance of budgeting for AEDs by speaking to scouting groups, local sports teams, PTAs, townships, and school boards.

Last June, the Weiner family was instrumental in directing funds raised at the Matt Weiner Swim-a-thon, held at their local swim club, toward the purchase of AEDs for the community. And Tom Weiner has successfully turned heads with the fact that ventricular arrhythmia is a fatal rhythm disturbance that requires swift defibrillation only available through the use of AEDs. The Weiners' school district has purchased 10 AEDs, and Princeton University has bought several.

The "golden thread," he says, is that two student deaths have been averted by the new AEDs at Princeton. A side benefit of the family's public-interest projects has been to deliver a degree of healing.

"We feel like we weren't done being Matt's parents," Weiner explains, "but we feel we are continuing our role as his parents through our commitment to obtaining on-site AEDs and our organ-and-tissue donation awareness efforts."

Moreover, if Weiner's cardiac troponin I study leads to the birth of simple testing for the stealth heart defect that claimed his son's life, individual risk can be assessed and untimely deaths perhaps forestalled.

For more information on organ-and-tissue donation, visit the Coalition on Donation website at <www.shareyourlife.org>.

For more information on automatic external defibrillators and placing them in your community, visit the American Heart Association website at <www.americanheart.org/presenter.jhtml?identifier=3007876>.

PennHIP[®] Seminars

PennHIP training seminars will be offered in conjunction with multiple upcoming veterinary annual meetings. The seminar consists of 7 hours of lecture (morning and afternoon) covering the current understanding of canine hip dysplasia with specific emphasis on the science to support the PennHIP radiographic procedure. Ample opportunity will be provided for hands-on practice of the technique through the use of bone and simulated mechanical models. Satisfactory completion of certification exercises will qualify the registrant for membership in the PennHIP network of trained veterinarians. The registration fee includes the cost of the distractor (necessary to perform the procedure), a training video, cost of certification exercises, and the PennHIP Training Manual. Technicians are welcome to accompany you, the veterinarian, for a small fee. A continental

breakfast, coffee breaks and lunch will also be included. Attendees will receive 6 hours of continuing education credit (from the University of Pennsylvania). For more information about the PennHIP program, or for updates on future training seminar dates, please visit the PennHIP website at <www.vet.upenn.edu/pennhip>.

Future seminars:

Western Veterinary Conference
February 14, 2004, Las Vegas, Nev.
Penn Annual Conference
March 10, 2004, Philadelphia, Pa.
American Veterinary Medical Association Annual Convention
July 23, 2004 (tentative date)
Philadelphia, Pa.

Treating Sick Animals and Many a Sweet Tooth

by Joan Capuzzi Giresi, C'86 V'98

It was an ominous Christmas gift, delightfully ominous. When **Janet B. Mitchell, V'90**, encountered the gorgeous Jersey calf, bedecked in a big red bow, on Christmas morning ten years ago, she had no idea this animal meant business: the ice cream business.

The calf, a gift from Mitchell's husband, Jim, signaled the re-launch of the defunct dairy operation at the 200-year-old Mitchell family farm. And it meant a delectable career offshoot for veterinarian Janet, who oversees the farm's ice cream operation.

When she's not practicing small-animal medicine full-time, Mitchell is busy hiring and scheduling retail staff, running the register, keeping the books, and concocting new ice cream flavors for the store, which operates April through October on the Hockessin, Del., farm where the Mitchells have lived since they wed in 1988.

Woodside Farm had ceased its dairy operation in 1961 in favor of producing various crops, eggs, poultry, beef, sheep, flowers, and pumpkins. A seventh-generation Mitchell to work the farm, Jim decided to resume the dairy operation in the mid-1990s. Although Woodside ships milk to a major dairy co-op ten months a year, Jim knew that a marketable product other than milk would be key to keeping the farm afloat.

Woodside was in good company, says Janet, who notes that a number of small dairies like theirs augment their bottom line by retailing milk-made products.

"More and more of the smaller dairy farmers are realizing that to stay in the dairy business, they'll have to direct-market a product," Janet explains.

After a lackluster stint with cheese, Jim contracted with another dairy to convert Woodside's milk into a base for ice cream. By 1998, Woodside Farm Creamery began offering some 30 flavors of ice cream, sold from an old wagon shed they converted into a store and walk-up stand.

The bucolic charm of the 75-acre spread

produces a popular backdrop for eating ice cream, says Janet, who estimates that Woodside served about 100,000 customers last year. "Our area has become very developed," she reasons. "So people think they are going out to the country when they come out to us."

Born in a small town just southwest of Richmond, Va., Janet had no ice cream ambitions as a child, save for maybe eating it. While growing up in the Mid-Atlantic states, she had various pets and, by about the age of 10, her veterinary quest had crystallized. But she viewed it as a largely outlandish wish. The turning point came at her Clemson University freshman orientation, when a friend's father stoked her dreams by telling her, "If this is what you really want to do, then work hard and do it."

Only three years into her bachelor's degree in zoology, Janet began veterinary school. By the age of 25, she had her V.M.D. degree, and went to work in lab animal medicine at nearby DuPont Merck Pharmaceutical Company.

Small-animal practice soon followed and, shortly after Jim decided to reintegrate dairy cows on the farm, Janet began to appreciate the difference—in terms of time commitment—between being a practice owner and an associate. "If I owned my own practice, I couldn't do [the creamery]," she says.

Late in the third season of operations, Janet took over management of the store from the supervisor they had hired to help them launch it. And she moved to her current practice, Hockessin Animal Hospital, which is just five minutes from home.

But being a business owner has given her a fresh perspective on some of the daily concerns of the practice owners for whom she has worked. "I definitely appreciate now why they were so particular about supplies and suture, and how it can affect the bottom line," says Janet, who is the current president of the Delaware Veterinary Medical Association.

Mitchell, 38, says veterinary practice has proved an excellent training ground for running an ice cream enterprise, particularly where staff-management issues are concerned. In the

ice cream shop, she has integrated elements of the varied management styles she has encountered over the years, in both industry and private practice.

And she is realistic about her staff's limitations. Her ice cream, she says, is sold by weight not only to tailor the portion size to the customer but also because, "It's hard to get 20 teenagers to scoop the same size cone."

In addition to store sales, the creamery supplies several local restaurants and gourmet shops, and stations an ice cream trailer at local special events like the Mushroom Festival in Kennett Square, Pa. Janet also donates ice cream to fundraisers for the local Rotary Club, of which she is an active member.

While cookie dough and vanilla win Woodside's popularity contest, the Mitchells regularly develop feature flavors—like pumpkin in the fall—and custom flavors for special events like Winterthur's recent 50th anniversary celebration. Woodside's "Peanut Butter & Jelly" ice cream was named the best kids' flavor at the 2003 National Ice Cream Retailers Association Annual Meeting.

At 15–16 percent butterfat, (10–12 percent is typical), Woodside's ice cream is on par with high-end, creamier brands like Ben and Jerry's and Häagen-Dazs. Two farm employees mix the ice cream base with flavors to produce a concoction that prompted Jim—when he appeared on the Food Network a few years ago—to quip: "This ice cream is so fresh it was grass a few days ago."

Woodside's 30 milking cows give Janet the occasional opportunity to bring her veterinary skills to the farm. While New Bolton Center provides veterinary services to Woodside, Janet is the first line of fire for health issues in the herd. And she treats routine bovine ailments like mild lacerations, uncomplicated dystocias, and milk fever.

When she joined Hockessin Animal Hospital a few years ago, her new employer—capitalizing on Woodside's popularity in the community—placed an ad announcing the arrival of "Dr. Janet Mitchell of The Creamery at Woodside Farm."

After all, she is, as her veterinary clients often call her, the "ice cream doctor."

For more information on Woodside Farm Creamery, visit www.woodsidefarmcreamery.com.



Class Notes

1961

Richard A. McFeely was featured in "Former Marines Meet to Celebrate '56 Detail" in the September 4, 2003 edition of the *Kent County News* of Chestertown, Md. He hosted a reunion with former Marines he served with in 1956.

1964

G. Frederick Fregin retired on June 30, 2003 as the founding director of the Marion duPont Scott Equine Medical Center in Leesburg, Va. The Center is one of three campuses operated by the Virginia-Maryland Regional College of Veterinary Medicine. According to VMRCVM Dean Peter Eyre, "The name Fred Fregin is almost synonymous with the name Equine Medical Center. It would be impossible to overstate the role that Fred has played in building the Center and the College into what they are today."

1967

Dean Alan M. Kelly received a letter of appreciation from a client of **Michael A. Kapolka, Jr.**, who practices at Bywood Animal Hospital in Upper Darby, Pa. According to the letter writer, "He has taken each [of my pets] under his wing ... and treated [them] with kindness, love, and compassion. He works so hard for all of them."

1969

Peter H. Herman married Marie Gombar on October 18, 2003.

1972

Jerry M. Geffen answers pet-related health questions during "Ask the Vet" on "Eyewitness News" on Saturdays at 9:00 a.m. on CBS 3 in Philadelphia. Dr. Geffen practices with his son, **Brett, V'96**, at Boulevard Animal Hospital in Philadelphia.

1973

Ronald Veenema was honored with the Dave Walker Award from the Vermont Veterinary Medical Association at its annual meeting in June 2003. The

award is given to a member of the Vermont VMA who best exemplifies the qualities exhibited by Dr. Dave Walker, who served as Vermont state veterinarian for many years and was an advocate for animal and public health. Dr. Veenema owns Vermont-New Hampshire Veterinary Clinic, a mixed animal practice, in East Dummerston, Vt. He is the secretary-treasurer of the Vermont VMA and has held all the association's officer positions.

1977

Judith K. Gwathmey was honored with a Distinguished Alumni Award from The Ohio State University College of Veterinary Medicine, where she received her doctorate in veterinary physiology, pharmacology, and toxicology in 1983. Dr. Gwathmey is the founder, CEO/President, and chief scientific officer of Gwathmey, Inc., a preclinical research company in Cambridge, Mass., which offers animal studies and in vitro assays for drug development.

1978

Linda E. Aiken is a new member of the Trustees' Council of Penn Women, a national network of Penn alumnae that supports, fosters, and promotes the advancement of women's issues within the University, thus enriching the University community as a whole.

1979

Margaret Landi visited Penn Veterinary Medicine in November 2003 and spoke to students as part of the Dean's Alumni Career Speaker Series. Since graduating from Penn, Dr. Landi has worked at Glaxo-SmithKline, one of the world's leading research-based pharmaceutical and healthcare companies. As worldwide vice president of Laboratory Animal Science for Research and Development, she provides guidance to more than 400 professional staff members in six countries who work and care for animals.

1982

Scott A. Brown, professor of physiology and pharmacology at the University of Georgia College of Veterinary Medicine, was honored earlier this year with four major teaching awards: the national Norden Award for Excellence in Teaching, the College's Norden Award for Excellence in Teaching, the University's Meigs Award for Excellence in Teaching, and the David Tyler Award for Innovation in Teaching.

During the 2003 annual meeting of the New Jersey Veterinary Medical Association, **Suzanne J. Smith** was named New Jersey Association of Equine Practitioners Veterinarian of the Year. She owns Spring Mills Veterinary Hospital in Milford, N.J., and

serves as secretary of the NJVMA. Dr. Smith is immediate past president of the NJVMA, and established its Animal Hall of Fame.

1983

Kevin C. Skinner visited Penn Veterinary Medicine in October 2003 and spoke to students as part of the Dean's Alumni Career Speaker Series. For the last 14 years, Dr. Skinner has worked at the Genzyme Corporation, one of the world's foremost biotechnology companies. Based in Cambridge, Mass., Genzyme focuses on rare genetic disorders, renal disease, immune-mediated diseases, and osteoarthritis. As a senior vice president, Dr. Skinner manages the Biosurgery Division's Research and Development Department, which is developing gene therapy and tissue engineered products for cardiovascular indications.

1984

Alise S. Weiss joined the Center for Veterinary Medicine of the U.S. Food and Drug Administration as a veterinary medical officer in February 2003. The Center regulates the manufacture and distribution of food additives and drugs that will be given to animals. A member of the Office of New Animal Drug Evaluation's Generic Animal Drug Team, Dr. Weiss reviews new animal drug applications.

1985

Major Kathleen M. Kral visited Penn Veterinary Medicine in November 2003 and spoke to students about the career opportunities available in the U.S. Army Veterinary Corps, which provides veterinary services to all the U.S. Armed Forces.

1990

Major Joseph G. Williamson is a new diplomate of the American College of Veterinary Preventive Medicine.

1991

Leslie Ziemer Marci and her husband, Peter, are proud to announce the birth of their twin daughters, Claire Elyce and Lauren Sophia, in May 2003. They join their older brothers, Jack, age 6, and Joseph, age 3. Dr. Marci practices part-time at MetroWest Veterinary Associates in Milford, Mass.

1994

Stephanie J. Murphy has recently joined the Oregon Health & Science University Department of Anesthesiology and Peri-Operative Medicine as an assistant professor. Dr. Murphy's research interests are in the areas of gender biology, ischemic brain

Five Alumni Join Banfield

Banfield, The Pet Hospital, has announced the recent hiring of five alumni at their veterinary hospitals: **Ilan G. Cohen, V'96**, practicing in Plymouth Meeting, Pa.; **Susan D. Katila, V'96**, practicing in Sterling, Va.; **Amy E. Matthews, V'01**, practicing in Darien, Ill.; **Michele A. Trammell, V'93**, practicing in Savannah, Ga.; and **Timothy D. Wright, V'76**, practicing in Wilmington, Del.

injury, and comparative medicine. She has published more than two dozen articles related to her research and clinical interests, and serves as an ad-hoc reviewer for the journal *Stroke*.

1995

John H. Tegzes has become board-certified by the American Board of Veterinary Toxicology. After completing a residency at the University of California, Davis, School of Veterinary Medicine, Dr. Tegzes has been appointed associate professor of toxicology at the Western University of Health Sciences College of Veterinary Medicine in Pomona, Calif. Welcoming its first class in August 2003, this is the first college of veterinary medicine to open in southern California and the first in the country in more than 20 years.

1996

David E. Bentzel, Jr. is a new diplomate of the American College of Veterinary Preventive Medicine.

Sallie Hyman is a new diplomate of the American College of Veterinary Internal Medicine (Internal Medicine—Large Animal). Dr. Hyman practices at Carolina Equine Clinic in Aiken, S.C.

1997

Bonnie S. Barr is a new diplomate of the American College of Veterinary Internal Medicine (Internal Medicine—Large Animal). Dr. Barr practices at Rood & Riddle Equine Hospital in Lexington, Ky.

Michelle G. Hawkins has joined the faculty of the University of California, Davis, School of Veterinary Medicine as an assistant professor of companion avian and exotic animal medicine and surgery in the Department of Medicine and Epidemiology.

Lisa A. Murphy visited Penn Veterinary Medicine in September 2003 and spoke to students as part of the Dean's Alumni Career Speaker Series. She is a veterinarian with the ASPCA Animal Poison Control Center, the premier animal poison control center in North America, in Urbana, Ill. Dr. Murphy also serves on Veterinary Medical Assistance Team 2, which is based in Maryland. Veterinary Medical Assistance Teams, composed of veterinarians, veterinary technicians, and support personnel, function as part of the National Disaster Medical System of the U.S. Department of Homeland Security and provide support to communities in the event of a federally declared disaster, emergency, or foreign animal disease outbreak.

Scott Weber, head veterinarian at the New England Aquarium in Boston, traveled to Barcelos, Brazil in December 2002 with two associates to examine the Amazon freshwater ornamental fish trade. While

ornamental fish account for only \$8 million of Brazil's \$350 million in annual exports, the harvest and export of ornamental fish is the major economic force in Barcelos and neighboring Santa Isabel do Rio Negro, accounting for 60 percent of the region's income. Dr. Weber and his team investigated ways to increase the quality of fish being exported so they arrive in the U.S. in the best possible health. They also trained Brazilian government veterinarians in fish necropsy (the first fish dissections they ever witnessed), histology, and blood sample preparation and analysis.

1998

Kathy J. Kazmierski is a new diplomate of the American College of Veterinary Internal Medicine (Oncology).

1999

Julie A. Ekedahl is a new diplomate of the American College of Veterinary Radiology.

Matthew S. Johnston, who recently left the Ryan Veterinary Hospital at Penn where he served as a staff veterinarian in the Special Species Medicine Clinic, is an assistant professor of exotics medicine at Colorado State University College of Veterinary Medicine. Dr. Johnston's wife, Vicki Campbell, who completed a residency in emergency and critical care medicine at the Ryan Veterinary Hospital in 2003, is an assistant professor of emergency and critical care medicine at Colorado State.

2000

Janna Makovoz married Dimitri Schnieberg, WG'05, on September 13, 2003. Their wedding was profiled in the November 9, 2003 edition of the *Philadelphia Inquirer*.

Intern

2003

Gabriella Sfiligol, who was an intern at the Ryan Veterinary Hospital, is a resident in medical oncology at the University of California, Davis, School of Veterinary Medicine.

Resident

2003

Justine A. Lee, who was a resident in emergency and critical care at the Ryan Veterinary Hospital, is an assistant clinical professor of emergency services at the University of Minnesota College of Veterinary Medicine.

Births

1989

Regina O. Turner, a daughter, Katie Ann, on August 31, 2003.

1995

Susan W. Volk, a son, Julian Porter, on July 5, 2003.

1996

Cynthia M. Buchanan, a daughter, Maggie, on July 21, 2003.

Deaths

1950

T. Richard Houpt on October 7, 2003. Husband of Katherine A. Houpt, V'63.

1952

Lars S. Nilsson on October 15, 2003.

1956

Karl L. Gabriel on July 21, 2003.

Elizabeth A. Lawrence on November 12, 2003.

1961

Joseph S. Hansen, Jr. on October 9, 2003.

1983

Cynthia A. Berardi on September 29, 2003.

1984

Stephen P. Butler on October 20, 2003.

Sharon E. Murray on September 25, 2003.

Share news with your classmates about a new position or accomplishment, wedding, or birth announcement by sending your class note today! We accept pictures, too, featuring alumni gatherings, whether it's from a wedding or mini-reunion. Be sure to identify everyone in the picture. Pictures will be returned only upon request. Send all your submissions to:

Joshua E. Liss
Director of Alumni Relations
and Annual Giving
University of Pennsylvania
School of Veterinary Medicine
3800 Spruce Street
Philadelphia, PA 19104-6047
Fax (215) 573-3544
E-mail: lissj@vet.upenn.edu

2004 Alumni Award of Merit Nominations Sought

Nominations are being sought for three recipients of the 2004 Alumni Award of Merit, which will be presented at the Veterinary Medical Alumni Society (VMAS) Annual Meeting during Alumni Weekend 2004.

The VMAS honors alumni who have made outstanding contributions to their profession and the School with the Alumni Award of Merit. The award is given annually to recognize distinguished graduates for their contributions that advance knowledge in biomedicine, promote the welfare of animals through public education of animal owners, and benefit society through civic activities which foster the advancement of the profession and the School's good name.

Eligible 2004 recipients are members of the classes that end in "4" or "9," and who will be celebrating a five-year reunion during Alumni Weekend 2004. Members of the VMAS Executive Board will select the recipients from the pool of nominees. Nominations are due **no later than December 31, 2003**.

For more information or if you have any questions, please contact Joshua E. Liss, Director of Alumni Relations and Annual Giving, at (215) 898-1481 or via e-mail at <lissj@vet.upenn.edu>. For a list of previous Alumni Award of Merit recipients, please visit <<http://alumni.vet.upenn.edu/alumniawardofmerit.html>>.

To make a nomination, please send a letter explaining your reasons to:

Joshua E. Liss
Director of Alumni Relations and
Annual Giving
University of Pennsylvania
School of Veterinary Medicine
3800 Spruce Street
Philadelphia, PA 19104-6047

Take a Video Tour of New Bolton Center

"On Any Given Day," the video made last year to mark New Bolton Center's 50th anniversary, is now available to view online at <<http://alumni.vet.upenn.edu/onanygiveday.html>>.

Alumni Connections

To find a former classmate and to sign up for a permanent e-mail forwarding service:

Join the University of Pennsylvania Alumni On-Line Community for free at <www.alumniconnections.com/olc/pub/UPN>. After you register, you can search the On-Line Directory, which is a great resource for personal and professional networking and an easy way to keep up-to-date on fellow alumni. You can also sign up for a permanent e-mail forwarding service, which will forward messages received at your permanent Penn address to the e-mail address of your choice.

To update your alumni record:

You can update your record via the University of Pennsylvania Alumni On-Line Community On-Line Directory. You may also contact Elizabeth McNamara at (215) 746-7461 or via e-mail at <emcnamar@vet.upenn.edu>.

To make a gift or for information to support Penn Veterinary Medicine:

Make a gift with your credit card through a secure online transaction at <www.upenn.edu/gifts>. For information on supporting the School, visit the Alumni & Friends website at <<http://alumni.vet.upenn.edu>> or contact Joshua E. Liss at (215) 898-1481 or via e-mail at <lissj@vet.upenn.edu>.

To request a transcript, certification of graduation, or replacement diploma:

For information on requesting a transcript, visit the Office of the University Registrar's website at <www.upenn.edu/registrar/transcripts/transcripts.html> or call (215) 898-7511. For information on requesting a certification of graduation, which does not require a transcript, contact the School's Office of Student & Curricular Affairs at (215) 898-3525 or via e-mail at <student-affairs@vet.upenn.edu>. For information on ordering a replacement diploma, visit the Office of the Secretary's website at <www.upenn.edu/secretary/diplomas/#diplomas>.

To post/search employment opportunities for veterinarians:

Visit the School's Veterinary Employment Database at <www.vet.upenn.edu/jobsearch>.

To purchase veterinary, medical, and allied health textbooks from leading publishers:

Visit the Penn Vet Bookstore at <www.vet.upenn.edu/studentaffairs/bookstore>. A percentage of purchases is returned to the School in the form of scholarship funding to deserving veterinary students.

To obtain a Penn Alumni Card:

The Penn Alumni Card offers a myriad of benefits, including access to the Penn Libraries (does not include borrowing privileges or access to online resources) and discounts on admission to the Morris Arboretum, Class of 1923 Ice Rink, and University of Pennsylvania Museum. The charge for the card, which is valid for 10 years, is only \$20. For more information, visit <www.upenn.edu/penncard/card/obtain_alumni.html>.

Alumni Relations and Annual Giving Staff

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Please address any correspondence to:

Office of Development
and Alumni Relations
University of Pennsylvania
School of Veterinary Medicine
3800 Spruce Street
Philadelphia, PA 19104-6047

Conference Announcement

Animal-Assisted Interventions in Adolescent Mental Health

March 28, 2004 - Jon M. Huntsman Hall

With the support of the Annenberg Foundation Trust at Sunnylands, the **Center for the Interaction of Animals and Society** at the University of Pennsylvania School of Veterinary Medicine is hosting a one-day conference on animal-assisted interventions in adolescent mental health. The conference is scheduled to take place at Jon M. Huntsman Hall on Penn's campus on Sunday, March 28, 2004. Registration for the conference will be open to the public. The program will include presentations from practitioners and scholars utilizing animal-assisted interventions in the treatment of adolescents with a variety of mental health diagnoses.

For further details or to register for the conference please visit:
<http://www.vet.upenn.edu/research/centers/cias/conferences.html>

Support The Landeau Challenge



Laurie J. Landeau, V'84 WG'84, has issued a challenge to inspire her fellow alumni to make their first gift or to increase their past support to the Veterinary Student Scholarship Fund, which supports the School's highest priority—the training of future veterinarians.

According to a fourth-year student who received a scholarship this fall, "It is wonderful that there are so many alumni who are unselfishly willing to support their colleagues in veterinary school." Another fourth-year student wrote, "I am sure that I speak for all of the students receiving this when I say that it is encouraging to know there is an interested and supportive community of practicing alumni out to meet us when we graduate."

If alumni contribute a total of \$150,000 in new and increased gifts to the Veterinary Student Scholarship Fund by June 30, 2004, Dr. Landeau will contribute \$150,000 to the School. According to Dr. Landeau, "Our School depends on the generosity of each and every one of us, no matter the level of our giving, to ensure that the next generation of V.M.D.s carries Penn's excellence into the future."

Help us meet The Landeau Challenge!

For your convenience, gifts can be made in several ways:

- By telephone with a credit card. Call the Office of Development and Alumni Relations at (215) 898-1480.
- Through a secure online transaction with a credit card at <www.upenn.edu/gifts>.
- By sending your check, made payable to the "Trustees of the University of Pennsylvania," to: The Landeau Challenge
Office of Development and Alumni Relations
University of Pennsylvania
School of Veterinary Medicine
3800 Spruce Street
Philadelphia, PA 19104-6047

For more information, please contact Joshua E. Liss, Director of Alumni Relations and Annual Giving, at (215) 898-1481 or via e-mail at <lissj@vet.upenn.edu>.

If making a gift by check, your gift must be postmarked by December 31, 2003 to be deductible on your 2003 tax return.

Eastern Veterinary Historical Society

By Max J. Herman, V'59, President, EVHS

George Santayana, an American philosopher and poet, once said that those who cannot remember the past are condemned to repeat it. So, what can the veterinary medical past teach us? Why is it important to preserve its artifacts, writings, and discoveries?

The answer is that regardless of the species, there is only "one medicine." Humans and animals are prey to the same or similar diseases. There are some illnesses that are unique to one species or another, but the ways in which they are approached are similar.

Veterinary medicine can be traced to the Babylonian *Code of Hammurabi* (c. 2000 BC). It has contributed enormously to the advancement of humankind. In the United States, since the middle of the last century, it has grown in sophistication and efficiency by leaps and bounds. It was veterinary medicine that introduced tuberculosis testing of cattle to help stop the spread of this disease in humans and cattle. A veterinarian, Dr. Karl F. Meyer, saved America's canning industry by developing a method

to prevent botulism, deadly to humans and animals.

The Eastern Veterinary Historical Society (EVHS) is dedicated to recognizing America's veterinary medical progress by preserving and promoting the history of American veterinary medicine. Since its inception more than a dozen years ago, it has accumulated an impressive collection of books, reference works, instruments, and other artifacts related to the profession over the last 150-plus years. This fascinating collection will be of great interest not only to veterinarians, students, and others in the world of medicine, but also to historians, the agricultural community, pet owners, and, indeed, the general population, for whom veterinary medical science works to ensure a safe and plentiful supply of quality food.

The EVHS now seeks financial support to help achieve its ultimate goal: a permanent location to display its incredibly diverse collection of books and artifacts, perform educational outreach, and make veterinary medicine and its history accessible to the general population.

We seek additional members for EVHS as well as donations to help advance this effort. The Society also needs donations of old veterinary artifacts, books, medicine cabinets, unusual preserved specimens, and other veterinary-related items. We also seek interested volunteers who are willing to work to put a strategic plan into action, develop a strong campaign to realize the Society's aims, and be eager to help enhance the financial stability so necessary for the Society to reach its goals.

Visit the Society's website at <www.evhs.org> or call the Society's headquarters at (610) 489-1229 to learn more about the Society's activities and how you may volunteer. We also invite you to visit the collection at its current quarters in Collegeville, Pa. Please call ahead for an appointment and directions. If you have items you are considering giving to the collection, please call to discuss any donation of artifacts. Donations are tax-deductible. By joining the Society today, you will be partners with us in supporting the history of veterinary medicine.

Animal Crackers

AKC Awards

The American Kennel Club gives Awards for Canine Excellence (ACE) to express its respect for the extraordinary canine-human bond as well as its appreciation for the innumerable ways in which dogs contribute to our lives. To qualify for an ACE, a dog is required to be AKC-registered or -registrable, and have performed an exemplary act, whether large or seemingly small, that has significantly benefited a community or individual. One award (\$1,000 and an engraved sterling silver collar medallion) is given every year in five categories. The following are the 2003 winners.

Law Enforcement: "Ordi," a seven-year-old male German shepherd, has worked with his partner at the O'Fallon, Mo. Police Department for more than six years. Ordi is cross-trained in patrol work and narcotics detection. Ordi is losing his vision and must retire, but now has a new vocation—visiting children at the Missouri School for the Blind. He continues to serve his community by demonstrating to students what can be accomplished through perseverance in the face of adversity.

Search and Rescue: "Pepper," a thirteen-year old male German shepherd in Croyden, Pa., served as a highly successful search-and-rescue dog for 12 years with local police and fire departments. He also worked with New Jersey and Pennsylvania State Police in searches for young children, Alzheimer's patients, and drowning victims. Retired from search and rescue, Pepper continues to work as a therapy dog; in fact, he and his owners were instrumental in starting a therapy program at Shriners Hospital in Philadelphia.

Therapy: "Josie," a six-year-old female Cardigan Welsh corgi, and her owner have made more than 500 visits to the Ronald McDonald House and hospitals in the Cleveland area. Josie possesses an uncommon ability to bond with critically ill and handicapped children. Josie's front leg was amputated because of an infection at birth. A surgeon met Josie and realized she could inspire children to overcome their own handicaps. She has elicited miraculous responses from extremely ill children.

Service: "Brock," a six-year-old male golden retriever in New York City, is friend and partner to his owner, an actor with cerebral palsy. Brock takes the place of crutches and provides

necessary assistance, such as help in negotiating stairs, crossing slippery pavements, and carrying a knapsack.

Companion: "Sadie," an eight-year-old vizsla, was abandoned and tied to the door of an antique store in Texas, with a note stating her name, age, and medication. She was rescued and placed in a home with a son who has a vascular disease that requires him to walk for improved circulation. He was reluctant to take walks before Sadie came into his life. They bonded and now Mike loves to take Sadie for long walks. Their special relationship exemplifies the canine-human bond at its best.

Book Review

The Kennel Club's Illustrated Breed Standards, revised edition. Kennel Club. (London: Ebury Press, 2003). \$60.00.

This handsome book gives all the breed standards recognized by the Kennel Club (United Kingdom). It is correct as of September 2002. All editions follow the same format—breeds are described by general appearance characteristics, temperament, head and skull, eyes, ears, mouth neck, forequarters, body, hindquarters, feet, tail, gait/movement, color, and size. A statement at the end of each standard states that any departure from the foregoing points should be considered a fault, and the seriousness with which the fault should be regarded should be in exact proportion to its degree and its effect on the health and welfare of the dog. Under "tail," in those breeds customarily docked, there is a description of the docked and undocked tail.

One hundred eighty breed standards are described in the book, but with varieties in six breeds (two German spitz, four Belgian shepherds, six dachshunds, two Chihuahuas, and three poodles) the total is 192. The American Kennel Club has 150 breeds eligible for competition at championship shows. Adding the varieties (three cocker spaniels, two beagles, three dachshunds, three poodles, two English toy spaniels, two Chihuahuas, two bull terriers, two collies, and two Manchester terriers), the total is 162.

There are seven groups in Britain—hound, gundog, terrier, utility (AKC nonsporting), working, pastoral (AKC herding), and toy. The miniature schnauzer is in the utility group rather than the terrier group, as it is in

America.

Intended as a guide for judges, this book should be of interest to all those interested in purebred dogs. It is a must-have for the serious fancier.

Turkish Angora Cats

The Turkish Angora, a medium-sized, long-haired cat is an old breed originating near the Turkish city of Angora, now known as Ankara. The cats were exported in the 1600s to France and Britain and are believed to have made their way to America with the early settlers. Today they rank in the lower third of registered purebreds with an estimated 6,000 to 9,000 Angoras residing in the United States and Canada.

Almost always, the breed is pictured as white and blue-eyed, but it comes in a number of colors, including solid coal black. Unfortunately, an all-white cat has about a 50 percent chance of deafness. It is said that these deaf cats are trainable, responding to sign language. Possibly their refined senses of sight and smell offset the deafness.

The Angora is a very active cat and needs to be in a home where it is around people. It has no undercoat, so its silky-smooth coat is easily maintained.

Breed Bans

Although certain breeds tend to appear more frequently in bite statistics, no reliable scientific evidence shows that particular breeds are consistently more aggressive than others. Even if they were, the "dangerous" individual dogs would still represent only a very small proportion of the breed. Yet breed bans penalize all the dogs in a breed, including the harmless majority. Breed-specific legislation may include requiring muzzles in public places and extra insurance premiums. Many breeds have been targeted: American Staffordshire terriers, bull terriers, Neapolitan mastiffs, Briards, chow chows, Dobermans, Rhodesian ridgebacks, and more. Dog bites and fatalities are more reflective of a breed's popularity than its propensity to bite. Even Labradors, golden retrievers, and cocker spaniels have been involved in dog-related deaths.

Organizations studying the problem acknowledge that no one breed has a propensity to bite humans more than others. In most

(continued on next page)



Special Gifts to the School

THE FOLLOWING MEMORIAL OR HONORARY GIFTS WERE MADE TO NEW BOLTON CENTER:

In memory of a special person:

A gift was made to the Dr. Jonathan Palmer Research Fund in memory of Mrs. Dolly Pouska by Mr. and Mrs. Richard D. Abbott.

In honor of a special animal:

Ms. Sarah E. Reese in honor of "BART"

In memory of a special animal:

Ms. Marjorie Christie in memory of "BATTLE IN ARRAY"
Mr. and Mrs. Kenneth D. Julian in memory of "TIDDLYWINKS"

THE FOLLOWING GIFTS WERE MADE TO THE MATTHEW J. RYAN VETERINARY HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA

In memory of a special pet:

Ms. Anne Abruzzese in memory of "YAPPER"
Ms. Joan M. Auten in memory of "SIDNEY"
Ms. Regina Berard in memory of "CATT"
Dr. Elio F. Bracco in memory of "MURPHY"

Mr. and Mrs. Joseph Caldopoli in memory of "BEAU"
Ms. Caryl Carpenter in memory of "SAM"
Ms. Karen L. Cayci in memory of "JOEY"
Mr. and Mrs. Charles R. Chadwick in memory of "FUZZY" & "SMOKEY"
Mr. and Mrs. Peter D. Cronin in memory of "GUENIVERE"
Mrs. Joanne M. D'Errico in memory of "SMOKIE"
Mr. and Mrs. Alexander A. Eichholz in memory of "TIGER"
Mr. and Mrs. Scott Green in memory of "SAM"
Ms. Charlotte B. Hedgebeth in memory of "PETRUSHKA"
Mr. and Mrs. William R. Hoffman in memory of "CHACO"
Ms. Amy Jernigan in memory of "SANDY"
Mr. and Mrs. Arthur Kast, Jr. in memory of "SUSIE"
Mrs. Carrie Keith in memory of "MOLASSES"
Ms. Monique K. Kelly in memory of "PIPER"
Dr. Robert L. Kennedy in memory of "MISTY THE SING SING CAT"
Ms. Carolyn J. King in memory of "PRECIOUS"
Mr. and Mrs. Ron Kjeldsen in memory of "CODY"
Ms. Ilene Klein in memory of "SPARKY"
Ms. Olga Koblick in memory of "BEAU"
Mr. Alan M. Lerner, Esq., Adelaide Ferguson, Jason and Rachael Lerner in memory of "EMMA JOY"
Mr. and Mrs. David Mealmaker in memory of "CACEY"
Ms. Kelly Obrien in memory of "ACE"
Mr. and Mrs. Arthur Reale in memory of "IAN"
Mr. and Mrs. Samuel R. Scott in memory of "DOHENY"
Mr. and Mrs. Stephen W. Smith in memory of "CLEO"
Ms. Wanda May Webb in memory of "CLARENCE"

In memory of the Honorable Matthew J. Ryan:

Marple Republican Party
Mr. and Mrs. James M. Shettsline
Mr. Thomas P. Whelan
Ms. Helen M. White
Ms. Helen T. White

In honor of a special pet:

Ms. JoAnn Cherry in honor of "BUDDY CHERRY"
Ms. Cynthia A. Madden in honor of "BAILEY" & "KELSEY"
Mr. and Mrs. Allen K. Megay in honor of "YAPPER"

In honor of those listed:

Mr. and Mrs. Jeffrey S. Feldman in honor of Dr. Patricia Sullivan
Ms. Lorie Holt in honor of Mr. and Mrs. Donald Cannon
Mr. Alan M. Lerner, Esq., Adelaide Ferguson, Jason and Rachael Lerner in honor of Dr. Colin Harvey

The following made gifts supporting the Clinical Studies Research Development Fund in memory of a special pet:

Ms. Nancy Roynan in memory of "BISCUIT" & "LIBBY"

The following made gifts supporting the Clinical Studies Research Development Fund in memory of "Jessie":

Bella Vista Training Center
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Mr. Randy Zicht

The following made gifts supporting the Clinical Studies Research Development Fund in memory of a special pet:

Mrs. Joan Kean in memory of "KIRA"
Ms. Ruth E. Crothers-Spitko in memory of "MISCHIEF"

The following made gifts supporting the Dr. Josephine Deubler Bridge in honor of Dr. Josephine Deubler:

Mrs. Gloria C. Cochrane

The following contributed gifts to Feline Hypertrophic Cardiomyopathy in honor of a special pet:

Mr. and Mrs. Kenneth W. Declément in honor of "R.W."

The following made gifts supporting the Wheaton Terrier Research in memory of a special pet:

Mr. and Mrs. Walter Hawkins in memory of "LUCY", "TEDDY", & "TIZZIE"

The following made gifts supporting Dr. Steinberg's Neurology Research Fund for Epilepsy in memory of a special pet:

Mr. and Mrs. Barry B. Miller in memory of "FLUFFY"

The following contributed gifts to the Dean's Discretionary Fund in memory of those listed:

Mr. Henry Alcalay in memory of Bernard Goodman

The following contributed gifts to the Dean's Discretionary Fund in memory of a special pet:

Ms. Margaret Coyle in memory of "RUPERT"

The following contributed gifts to the Humanitarian Fund in memory of a special pet:

Ms. Marie Todaro in memory of "GATINA"

The following contributed gifts to Veterinary Student Scholarship in memory of those listed:

Joseph F. Dimauro, V.M.D., in memory of Janet Remetta, V.M.D.
Charles J. Driben, V.M.D., in memory of Paul Berg, V.M.D.
Mr. and Mrs. Thomas C. Licorish, in memory of Daniel Burnside, V.M.D.

The following contributed gifts to Veterinary Student Scholarship in memory of a special pet:

Deborah J. Abt, V.M.D., in memory of "ELLIE"
Tomi J. McCann, M.D., in memory of "BUDDY", "SWEET PEA", & "PEDO"
Lois Elaine Sloan, V.M.D., in memory of "CHOPPER"
Donna M. Trent-Burchess, V.M.D., in memory of "CASEY JONES"

Bellwether

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Animal Crackers

(continued from previous page)

instances of bites, the owner is at fault—by neglect, purposeful training toward aggression, or even misguided efforts to breed larger, more "macho" dogs.

Socialization and training are critically important in producing the temperament of an individual dog. The Rottweiler and American Staffordshire terrier score as high or higher in temperament tests than dogs traditionally considered family-oriented or safe.

The American Kennel Club has issued the following statement in response to legislation that singles out specific breeds:

"The American Kennel Club supports reasonable, enforceable, nondiscriminatory laws to govern the ownership of dogs. The AKC believes that dog owners should be responsible for their dogs. We support laws that: establish a fair process by which specific dogs are identified as "dangerous" based on stated, measurable actions; impose appropriate penalties on irresponsible owners; and establish a well-defined method for dealing with dogs proven to be dangerous. We believe that, if necessary, dogs proven to be "dangerous" may need to be humanely destroyed. The American Kennel Club strongly opposes any legislation that determines a dog to be "dangerous" based on specific breeds or phenotypic classes of dogs."

"Take a Seat" Campaign

With plans for the new Teaching and Research Building in the final stages, we want to update alumni and friends on the progress of the "Take a Seat" campaign, an initiative that offers classroom seats in the new building to those interested in naming a seat, honoring/remembering a special someone or a beloved pet. As of October 31, 2003, more than 170 of the 260 available classroom seats have been designated. The list that follows represents those who have completed or are in the process of completing a booked pledge (pledge/gift form must have been submitted to the Development Office).

A classroom seat can be dedicated for a tax-deductible contribution of \$3,000 that is payable over a five-year period. If you have questions regarding the "Take a Seat" campaign, please contact Dori Myers, Major Gifts Officer, in the School's Development Office at (215) 746-7438 or via e-mail at <dmyers@vet.upenn.edu>.

Listings are shown as:

Person Making Pledge

Given in Honor of/in Memory of

PATRONS

Dr. and Mrs. Donald Abt, V'61

Given in Memory of Mark W. Allam, V'32

Richard G., V'48, and Laverne Ainley

Given in Memory of Robert A. Vanderhoof, V'45

Wilbur B. Amand, V'66

Given in Memory of Wilbur F. and Caroline M. Amand

Animal Rescue League of Philadelphia

Given in Honor of the School of Veterinary Medicine's Faculty and Students

Animal Rescue League of Philadelphia

Given in Honor of Dr. Josephine Deubler for Her Years of Service as Secretary

Anonymous

Given Anonymously in Memory of Joan B. O'Brien's V'63 Love of Teaching

Lillian R. Aronson, V'92

Given by Lillian R. Aronson, V'92

Dr. Michael Atchison

Given by Michael and Lakshmi Atchison with Love for Their Sons Alan and Steven

Mr. and Mrs. Richard Aucamp

Given by Richard and Kathleen Aucamp

Dr. Narayan G. Avadhani (2)

Inscription to come

Jill Beech, V'72

Given by Jill Beech, V'72

Charles N. Bell, V'70

Given in Memory of Our Cat Looch by Jeffrey, V'03, Charles, V'70, Barbara, Marc, and Jaclyn Bell

R. Avery Bennett, D.V.M.

R. Avery Bennett, D.V.M., DACVS, Small and Exotic Animal Surgery

Charles E. Benson, Ph.D.

Given in honor of Richard A. McFeely, V'61

Charles E. Benson, Ph.D.

Given in honor of Robert J. Eckroade, D.V.M., Ph.D.

Daniel D. Bleicher, V'53

Given by Carol Bleicher and Daniel Bleicher, V'53, for Richard J. Bleicher, M.D.

Dr. Raymond C. Boston

Given in Honor of the Boston Sons: Sean, Marc, Paul, and James - Prospering Through Independence

Alan P. Bregman, D.V.M.

Given by Alan P. Bregman, D.V.M., in honor of my parents, Jack, V'66, and Alicia Bregman

Eric M. Bregman, V'95

Given by Eric M. Bregman, V'95, in honor of my parents, Jack, V'66, and Alicia Bregman

Jack, V'66, and Alicia Bregman

Given by Jack, V'66, and Alicia Bregman in memory of Patsy

Florence T. Brennan

Given in Honor of Bernard F. Brennan, V'46

M. Elaine Redding Brinster

Given by M. Elaine Redding Brinster, Faculty Wife

Ralph L. Brinster, V'60

Given by Ralph L. Brinster, V'60

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Given in Loving Memory of Robert and Dorothy Cimino

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Maron Calderwood Mays, V'68

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Given by Dr. and Mrs. Samuel K. Chacko

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Dr. Richard O. Davies

Richard O. Davies, Department of Animal Biology

Sherrill Davison Yeakel, V'83

Inscription to come

Patricia Day-Lollini, V'79

Given in Memory of Quint and Meshach, by Patricia Day-Lollini, V'79

Dr. Adelaide Delluva

Given in Memory of Dwight McNair Scott, Ph.D.

David K. Detweiler, V'42

Inscription to come

Josephine Deubler, V'38

Given in Memory of Ernest C. Deubler, V'11

Trish A. diPietrae

Given by Trish diPietrae

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Given by Dr. and Mrs. William Donawick, Faculty 1964 - 2002

Dr. Zhenyia Dou

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Roselyn J. Eisenberg, Ph.D.

Given by Roselyn J. Eisenberg in Memory of Robert E. Davies, Teacher, Scholar, Friend

Dr. Jay P. Farrell

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Neal R. Frank

Given in Loving Memory of Janet Remetta, V'85 - Wife, Friend, and Humanitarian

Paul C. Gambardella, V'72

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Given by the Gerstenfeld Family - Tyler, Sheldon, V'68, Traudi, Sidney, and Isabelle

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Mark E. Haskins, V'69

Given in Memory of Mitzi G. Haskins by Mark Haskins, V'69, Pathobiology

Park W. Haverstick, V'75

Inscription to come

Peter H. Herman, V'69

Given in Honor of the Marriage of Marie Gombard and Peter Herman, V'69, on October, 18, 2003

Steven Jay Heyman, V'87

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Given in Honor of Laurie Strine, V'90

Dr. Amy Kapatkin and Dr. Robert Poppenga

Given by Amy Kapatkin, Department of Clinical Studies, and Robert Poppenga, Department of Pathobiology

Carol Katzman

Given by Shira Badanes and Carol Katzman

Malcolm J. Keiter

Given in Memory of Alvin E. and Daphne L. Keiter by Their Sons

Alan M. Kelly

Given in Honor of Robert R. Marshak, D.V.M.

Alan M. Kelly and Barry Stupine

Given in Memory of Speaker Matthew J. Ryan by Alan M. Kelly and Barry Stupine

Karen Tabak Kessler, V'96

Given in Loving Memory of Geneva by the Kessler Family

“Take a Seat” Campaign

Seth A. Koch, V’65

In Honor of Lionel F. Rubin, V’58

Leonard Krawitz, V’39

Given by Leonard Krawitz, V’39

Laurie J. Landeau, V’84

In Memory of Gypsy 1981 - 1997, from Penn Vet to My Heart - Laurie J. Landeau, V’84

Midge Leitch, V’73

Given in Memory of Thomas Leitch by Midge Leitch, V’73, Londonderry Equine Clinic

Joshua E. Liss

Given by Joshua E. Liss in Honor of All the Veterinarians Who Have Cared for His Pets

Meryl P. Littman, V’75

Given in Memory of Albert Podolsky by Drs. Gary and Meryl Littman, V’75

Ashra Markowitz

Given by David, Norman, Minnie, and Ashra Markowitz

Dr. Robert R. Marshak

Given in Memory of John E. Martin, V’42

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Given in Honor of Margo Post Marshak

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Given in Memory of Mr. and Mrs. Thomas E. McDonald

Dr. and Mrs. Norbert R. McManus, V’47

Given by Norbert R. McManus, V’47, and Mary M. McManus, R.N.

Dr. Kathryn E. Michel

Given in Honor of John L. Mara, D.V.M., by Kathryn E. Michel, D.V.M., Department of Clinical Studies

Richard R. Miselis, V’73

Given by Richard R. Miselis, V’73, Animal Biology

E. Neil Moore, D.V.M., Ph.D., D.A.C.V.I.M.

Given by E. Neil Moore, D.V.M., Ph.D., D.A.C.V.I.M., Professor, Physiology in Medicine, 1962 to 2002

Dr. Daniel O. Morris

In Memory of John J. Daniel, Grandfather and Mentor, by Dr. Daniel Morris, Dermatology

Dr. Adrian R. Morrison, Jr.

Given in Honor of My Wife, Olive R. Morrison, by Adrian R. Morrison, D.V.M.

Dori Myers

In Memory of J. Charles Whitaker, M.D.

Marvin A. Norcross, Jr., V’59

Given in Honor of the Faculty, Staff, and Graduates of Penn by Marvin A. Norcross, V’59

David Nunamaker, V’68

Given by David, V’68, and Ursula Nunamaker

Dr. Cynthia M. Otto

In Honor of the Search and Rescue Dogs of 9/11/01

Donald F. Patterson, D.V.M., DSC

Given by Donald F. Patterson, D.V.M., D.S.C., Section of Medical Genetics, Department of Clinical Studies, Philadelphia

Sandra Z. Perkowski, V’88

Given in Celebration of the Life and Times of Jasper the Dog by Sandra Perkowski Sutherland, V’88

Pets First Veterinary Center/Curt D. Heyde, V’94

Given in Memory of David H. Knight, D.V.M.

Carolyn B. Pope

Given by Carolyn Baker Pope, Animal Biology

Dominick A. Pulice, V’86

Given in Honor of Christine, Elizabeth, and Kathleen Pulice

Charles W. Raker, V’42

Given in Memory of Joanie Elser, a Special Friend of New Bolton Center by Charles W. Raker, V’42, Surgery

Bruce Rappoport

Given in Honor of Steven T. Rappoport, C’02, by Mr. and Mrs. Bruce A. Rappoport

Bruce Rappoport

Given in Memory of Arthur E. Rappoport, M.D., by Mr. and Mrs. Bruce Rappoport

Kelly D. Reynolds

Given in Honor of My Children, Daniel, Melissa, and Gabrielle Ardis Reynolds

Michael W. Ross, D.V.M.

Given in Honor of Stone and Kennedy Ross by Michael W. Ross, Their Dad

H. Mark Saunders, V’81

Given in Honor of My Radiology Mentors, by H. Mark Saunders, V’81

Gerhard A. Schad, Ph.D.

Given in Memory of Donna J. Schad by Gerhard A. Schad, Ph.D., Laboratory of Parasitology

Dr. Dieter M. Schifferli

Given in Memory of Peter and Maguida Schifferli

H. James Schroll, V’74, and Jane Sparacino, V’74 (2)

Inscription to come

Dr. Phillip Scott

Given by the Scott Family for “Sandy” - Pathobiology

Patricia L. Sertich, V’83

Patricia L. Sertich, M.S., V’83, Diplomate American College Theriogenologists

Dr. Kevin Shanley

Inscription to come

P. Jane Simone

Given by Jane Simone in Memory of Spencer’s Way - 1981-2002 - NBC Development

Margaret Sleeper, V’93

Given in Honor of Edward Mathis Sleeper, V’73, by His Daughter, Meg T. Sleeper, V’93, and Her Husband, Dave

H. Richard Smalley, V’61

Given by Dr. and Mrs. H. Richard Smalley, V’61

Lawrence R. Soma, V’57

Given in Memory of My Mother and Father, by Lawrence R. Soma, V’57

The Business Office at Ryan Veterinary Hospital

Inscription to come

Sheldon A. Steinberg, V’59

Given in Honor of James M. Sprague, by Sheldon A. Steinberg, V’59

Mark A. Stuart

Given by Tim Rupe and Mark Stuart

Barry Stupine and Alan M. Kelly

Given in Memory of Speaker Matthew J. Ryan by Alan M. Kelly and Barry Stupine

Barry and Susan Stupine

Given in Honor of Jeffery Stupine

Barry and Susan Stupine

Given in Honor of Erika Yablonovitz

Raymond W., V’82, and Corinne P. Sweeney, D.V.M.

Drs. Raymond W., V’82, and Corinne R. Sweeney

Thomas J. VanWinkle, V’75, and Mattie J. Hendrick, V’78

Given by Tom Van Winkle, V’75, and Mattie Hendrick, V’78, Laboratory of Pathology

George D. Vernimb, V’56

Given by George, V’56, and Ruth Vernimb

Charles H. Vite, D.V.M., and Susan W. Volk, V’95

Given in Memory of Erie and Tasha by Charles Vite and Susan Volk, V’95

Lynn M. Walker, V’87

Two Dear Border Collies, Rob and Nell - Lynn M. Walker, V’87

Dr. Peiging Jeremy Wang

Given in Memory of Mr. Bingxun Wang by Dr. P. Jeremy Wang

Robert J. Washabau, V’82

Given by Robert J. Washabau, V’82

Suzanne S. Weaver

In Memory of Wally and Jeff Weaver - Ryan Hospital

Dr. Wilfried T. Weber

Given in Memory of Irmgard Weber by Wilfried Weber, Department of Pathobiology

Helma Weeks

Given in Honor of All the Penn Veterinarians Who Helped My Bullmastiffs, by Helma Weeks, Nutiket Registered

Dr. Leon P. Weiss

Given by Dr. Leon Weiss in Honor of Alice Weiss, V’84

James F. Wilson, D.V.M., J.D.

Given by Elise Prior Wilson and James F. Wilson, D.V.M., J.D.

John H. Wolfe, V’82

Given by John Hall Wolfe, V’82

Jeffrey A. Wortman, V’69

Given in Memory of My Parents Bertram and Mildred Wortman, by Jeffrey A. Wortman, V’69

PARTNERS (\$1,000 – \$2,999)

Robert L. Ticehurst, V’34

CONTRIBUTORS (Up to \$999 — Supports technology in the classroom)

Wendy Curtis Uhle

George V’76, and Patricia Zimmerman

Dedication of the Matthew J. Ryan Veterinary Hospital

Hurricane Isabel's strong winds prevented the School from holding the dedication festivities in the Old Vet courtyard. Instead, more than 300 guests assembled on September 19 in Huntsman Hall to celebrate the dedication of the Matthew J. Ryan Veterinary Hospital of the University of Pennsylvania. Many members of the Pennsylvania House of Representatives and the Senate were present, as were judges, state officials, and family and friends of the late Matthew J. Ryan.

University President Judith Rodin, CW'66, spoke eloquently about Matthew Ryan, his dedication to serve all the citizens of Pennsylvania, his love for his family, and his devotion to Magic, his dog. "We are so grateful for his unflagging commitment to this School, which is truly a great treasure for the Commonwealth," Dr. Rodin remarked. "He protected it and supported it, but I think what is so important to us in putting Matt's name on this building is that we also honor Matt so much for his statesmanship and for his integrity."

Governor Edward G. Rendell, C'65, warmly remembered Speaker Ryan. "Today this is a dedication ceremony where I can be as passionate as every one of us in this room is because it's about things that most of us hold very dear and love very

much. One was Matt Ryan—and, as Dean Kelly and President Rodin said, it didn't matter what political party you were from, it didn't matter

whether you were a new member of the legislature or an older member of the legislature, whether you were mayor or county commissioner. If you dealt with Matt Ryan, you learned to respect him, then like him, and, over the course of time, love the tremendous qualities of character and

integrity and that tremendous sense of humor that's part of that."

Speaker of the House John Perzel could not be present for the ceremony. He asked **Roger Nick**, former chief of staff for Matthew Ryan, to read a letter from him:

"Greetings! I am pleased to send best wishes to all who gathered to dedicate the Matthew J. Ryan Veterinary Hospital of the University of Pennsylvania.

"Matt was my good friend and mentor, and I still get an ache in my heart and a tear in my eye when I think of him. Matt is looking down at this ceremony today grinning from ear to ear, he was proud to support this fine institution. When the leaders of the General Assembly would meet to work on the state budget Matt always made sure that Penn's Vet School's research, development, and care got sufficient funding to maintain its world-class status. He

knew that the reputation and continuation of this school was not only important to the people of Philadelphia and the Commonwealth, but the nation and the world. Just this month, there was a story in *The New Yorker* magazine about the quality of this School and the staff.

"Matt's devotion to this School stems from his attachment to his black Lab, Magic. Many times when he was holding court in his office, he would point at photo of Magic and then tell us a story about the dog; he just loved that dog, and the dog loved him.

"Many of you at today's dedication who also were at Matt's funeral will never forget driving past Matt's house on Providence Avenue after the church service and seeing Magic on the lawn watching us drive by, perhaps thinking that the next car would bring his best friend home. Magic's loyalty to Matt was precious, honest, and rare—and so was Matt. Every time we drive by this Hospital, we will be reminded of his legacy.

"Through all his years in government service, he was always a diplomat, always thoughtful, and always motivated by an abiding desire to do what was right. He was completely trustworthy, and he could tell a good joke. Matt Ryan served Pennsylvania with the greatest dedication and distinction. We will remember him for his courage; his devotion to Pat, his children, and his dog; and his indomitable desire to be fair."





The Ryan family unveils a picture of the signage at the Matthew J. Ryan Veterinary Hospital.



Dean Alan M. Kelly, Vice Dean Barry Stupine, and Judge Jenkins.



Herbert and Ellen Moelis, Christine Connolly, and Cuyler Walker.



Governor Edward G. Rendell.



Governor Rendell greets Matt Ryan's grandchildren.



Former Pennsylvania Governor Mark Schweiker and The Honorable Patricia Jenkins, widow of Matthew J. Ryan.



University President Judith Rodin.

Upcoming Events

January 2004

10–17

Pennsylvania Farm Show 2004

Farm Show Complex

Harrisburg, Pa.

Visit Penn Veterinary Medicine's booth at the largest indoor agricultural event in America.

18

7:15–10:00 p.m.

Alumni Reception

The North American Veterinary Conference

Grand Salon I–II

Marriott Orlando World Center Hotel

Orlando, Fla.

For information, contact Joshua E. Liss at (215) 898-1481 or at lissj@vet.upenn.edu.

28

2:00–4:00 p.m.

Veterinary Medical Alumni Society Executive Board Meeting

Ryan Veterinary Hospital at Penn

February 2004

16

7:30–9:30 p.m.

Alumni Reception

Western Veterinary Conference

Mandalay Bay Resort

Las Vegas, Nev.

For information, contact Joshua E. Liss at (215) 898-1481 or at lissj@vet.upenn.edu.

March 2004

11–12

2004 Penn Annual Conference

Adam's Mark Hotel

Philadelphia, Pa.

For information, visit <http://alumni.vet.upenn.edu/pennannualconference.html>.

11

2:00–4:00 p.m.

Veterinary Medical Alumni Society Executive Board Meeting

at 2004 Penn Annual Conference

April 2004

17

Groundbreaking of the New Teaching and Research Building

Philadelphia, Pa.

The day's activities will include "Classes Without Quizzes" presentations with faculty speakers, the groundbreaking ceremony, and a dinner featuring Nobel Laureate Dr. James Watson.

May 2004

12

2:00–4:00 p.m.

Veterinary Medical Alumni Society Executive Board Meeting

Alumni Hall

New Bolton Center

17

Penn Veterinary Medicine Class of 2004 Commencement

For information, visit www.upenn.edu/commencement.

July 2004

25

6:30 p.m.

Alumni Reception

American Veterinary Medical Association Annual Convention

Loews Philadelphia Hotel, 33rd Floor

Philadelphia, Pa.

For information, contact Joshua E. Liss at (215) 898-1481 or at lissj@vet.upenn.edu.

September 2004

18

Penn Veterinary Medicine Open House

New Bolton Center

Everyone is welcome to attend this free biennial event, which is the only time New Bolton Center is open to the public. Visitors will be able to tour the George D. Widener Hospital for Large Animals, Scott Equine Sports Medicine Building, Marshak Dairy, and swine facility. There will also be exhibits, demonstrations, and entertainment for the entire family.

October 2004

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Alumni Weekend 2004

New Bolton Center

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